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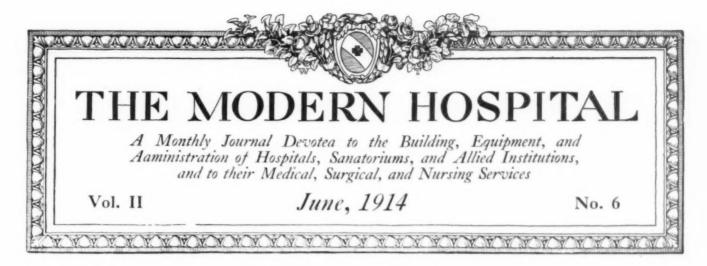
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NEW ROBERT W. LONG HOSPITAL, OF INDIANAPOLIS.

Medical Staff Designed Features of New Institution, and the Architect Built It for Widest Possible Flexibility—Some Rather Unique Features.

BY CHARLES P. EMERSON, M. D.

THE Robert W. Long Hospital, located at Indianapolis, Ind., is a hospital of about 100 beds capacity, presented, fully equipped, to the state of Indiana as the hospital of Indiana University by Dr. and Mrs. Robert W. Long, of Indianapolis. It is to be maintained by the state of Indiana for the benefit of the sick poor of that state. The construction for this hospital was begun in November, 1912, and is now about ready for patients. In planning this hospital the medical problem was outlined first, and then the building was fitted by the architect, Mr. Robert P. Daggett, to this problem.

The hospital is a four-story building of gray mat-faced brick and steel construction, with Bedford stone trimmings and with floors of reinforced concrete. The main portion, four stories high, measures 75 by 48 feet, the ell 40 by 26 feet, and the two wings, of three stories each, 76 by 36 feet.

The hospital is planned for the care of adult medical and surgical cases. The present intention is to devote the second floor to men and the third to women patients. Its normal capacity is 106 beds, 18 of which are in private rooms on the first floor, and 88 in the public wards of the second and third floors. On the fourth floor of the main portion of the building are the operating rooms, while over the ells are two roof gardens. In the basement are the kitchen, dining rooms for doctors, nurses, and help, the laundry and the boiler rooms. The building is heated by steam. The arrangements for natural ventilation are supplemented by forced ventilation, one large fan blowing washed and heated (or cooled) air into

the rooms, and three fans drawing out the bad air—one from the wards, one from the kitchens, and one from the service rooms.

On the first floor are the rooms for the private patients and the offices of the executive staff of the hospital. The only point of medical interest on this floor is the central reception room, which, when the east and west doors are closed, as they should be during the day, does not allow visitors access to or sight of the corridors or the private rooms. The second and third floors are almost identical in arrangement. Each of these floors is not only a perfect hospital, but each also can be conducted as three isolated units. The efficiency of a hospital demands that each floor be a complete hospital in itself—that is, that for the care and comfort of the patient it should not be necessary for him, or for the doctor or nurse in his behalf, to leave that floor. If, for example, the laboratory is a part of the ward, the doctor and his students will in the course of the day make more clinical examinations than if they must go to a separate laboratory building or even to another floor. Separate laboratory buildings are very desirable for research workers, and for the ward workers in case they desire to make special examinations; but the daily routine of the ward work, with its routine of laboratory examinations, is another matter, and, that this may not be sacrificed to research, we have placed a laboratory on each floor. For the same reason there is on each floor a special hydrotherapeutic room, in which all the common and simple forms of baths may be given; for certainly, if neither nurse nor patient must leave the ward each time

a bath is prescribed, more baths will actually be given daily than would be the case were there a separate bath house. Each large ward has its own balcony for bed patients. The roof gardens are intended primarily for convalescent patients.

Forty-four beds was accepted as the floor unit of this hospital. The reason for this figure is that, on the one hand, there should be as many patients on each floor as is consistent with their comfort and safety, since the same space for administration and equipment will serve 60 patients as easily as 10, while, on the other hand, the upper limit of the number of patients on one floor is the maximum number of patients for whose care, by her pupils, one graduate nurse can be responsible. Supervising nurses in hospitals with a

in order that they may learn well the art of nursing. It would, therefore, be an accident were our ward unit the same as that of Germany, and, indeed, experience has shown that for our problem between 40 and 50 patients is a better ward unit.

One of the most important points in hospital architecture is to save the nursing force as many miles of walking per day as possible and to avoid stone floors wherever possible, for the more fatigued the nurse the poorer her work. The sore feet of the nurse is a problem to be considered seriously if efficiency of nursing is our aim. Good nursing consists not merely in doing all that is actually necessary for the patients, but in doing for them, in addition, much more than is necessary; good nursing consists in carrying out all



Fig. 1. Robert W. Long Hospital-Front view.

ward unit of 28 or under complain that the work on one floor cannot keep them busy, and they object to the care of more than one floor. In Europe the nursing is done largely by graduate nurses who, for the most part, are permanent residents of the hospital; and the reason for the unit of European hospital floors, about 26, was probably that one graduate nurse with maids can give personal attention to about that number. In America, however, our nursing is not done by graduates, nor do ward maids play a conspicuous part in the hospital work. Here the actual nursing is done by inexperienced undergraduate nurses, who are "learning how," and who are sent to another ward as soon as they are efficient in one. These pupils must be under constant supervision, not only for the patients' sake, but

the doctors' orders and also in making the patients just as comfortable and happy as possible. The more tired the nurse and the sorer her feet, the fewer of these little extra attentions will the patients receive. For this reason the distances from the service rooms and the diet kitchen to the farthest patients should be as short as possible, and the floors should be covered (in wards for adults) by an elastic material. Large wards are usually long wards, since the width of a ward is a nearly constant quantity. Wards with 24 beds are too long. We have attempted to arrange 44 patients in semi-circles around two administrative centers, and believe that we have reduced considerably the total distance to be walked by the nurses.

In the large wards the concrete floor is covered



Fig. 2. Robert W. Long Hospital-Basement plan.

wide strip of linoleum. The 44 patients on each public floor are grouped in two large wards, with 16 beds each, and four small rooms arranged in pairs, separated by the north and south corridor. each pair to contain from 3 to 6 patients. The larger rooms will contain easily 4 beds and the smaller rooms 2 beds. Each group of one large and two small rooms for 22 patients has as its center a service room. The diet kitchen, common to both groups, is between the two. From the intersection of the two corridors the nurse can command a view of a surprising number of all 44 beds.

One of the reasons for this grouping of the patients is the following: suppose that a contagious disease, as scarlet fever, were to appear in, for example, the large east ward. This room can at once

on the sides with wood and in the center with a be isolated, with its patients, nurses, and adjacent service rooms. We believe that it is in the service rooms that ward epidemics start and that in these rooms the nurses receive their infections. The same diet kitchen and linen closet can serve safely the isolated portion of the floor as well as the rest, since from them the clean supplies are carried to the isolated nurses, but the same common use is not possible in the case of those rooms to which the dirty linen and the excreta of the patients are carried. Suppose, next, that a case of measles were to appear in the large west room; then this ward, with its service rooms, can also at once be isolated. The laboratory can now be used as the service rooms of the four small central wards. In this way we have on one floor three separate hospitals, each satisfactorily isolated from the other two-two with 16 beds each and one of 12. The



Fig. 3. Robert W. Long Hospital-First floor plan. Administration and private rooms.



Fig. 4. Robert W. Long Hospital-Second floor plan.

soiled linen for each can be put at once into lysol or phenol containers and the used dishes carried to a common sterilizer.

In order to deaden sounds, the walls of the small wards are made of two layers of hollow tiles, separated by a mattress of seaweed. In these rooms noisy patients or those with disagreeable conditions may be isolated, or patients with similar diseases grouped.

Each floor has its own admission room, a large room directly across the corridor from the elevator, into which each new patient is first taken. Here he is given a complete bath and receives his ward clothes. Here any minor surgical operation may be performed, fractured bones set, etc. To this room he could be brought for dressings.

The elevator, the admission room, and the laboratory are grouped at one end of the north corridor, and are separated from the wards by thick swinging doors, which are intended to deaden the sounds from these, the chief centers of noise in most hospitals.

The lighting of the wards is by chandeliers with opaque reflectors, which throw all the light to the ceiling. In one large ward we also have used floor lights as an experiment, hoping that the nurse can obtain an even light in the ward without awakening the patients, each of whom will be shaded from this light by his bed. Behind each bed is a signal light, which gives a red signal when the patient presses the button of his bed-cord to call the nurse. In addition, there are emergency buttons at convenient points on the walls. When these are pressed, a green light shines at several points throughout the floor and a buzzer in the diet kitchen rings the alarm. This is to be used by a nurse who sees that she must have at once the assistance of other nurses.

The surgical rooms are on the fourth floor. In order that the convalescent patients may reach the roof gardens on this floor without going through the surgery, outside balconies were built connecting the ell with these roof gardens. The surgery consists of two large operating rooms.



Fig. 5. Robert W. Long Hospital-Fourth floor plan.

with north light. Each operating room has its own anesthetizing room, and between them, equally distant from both, is the sterilization room, where the instruments and supplies are always ready. On this floor is also the dark room for examinations requiring artificial illumination.

Since this one building must be a complete hospital, there are in the basement the boiler room,

the ventilating apparatus, the laundry, the kitchen, and the dining rooms for the staff, nurses, and help. On this floor are also the large store rooms for the hospital. The hospital faces south, and is placed in the center of the east end of a lot of sixteen acres. It is hoped that some day there will be a new medical school building and new hospital units to complete the medical group.

WOMAN'S AUXILIARY AS AN AID IN HOSPITAL SERVICE.

The Story of One Such Board That Has Come to Be an Integral Part of the Institution's Activities—Success Depends on Its Self-Limitation.

BY MRS. DAVID W. GRAHAM.

PRESIDENT OF THE WOMAN'S BOARD OF THE PRESBYTERIAN HOSPITAL, CHICAGO.

I HAVE hesitated to comply with the request of the editor of The Modern Hospital for a story about the work of our Woman's Auxiliary in the Presbyterian Hospital for the reason that, while my experience in such work has been long, it has been limited to one hospital, and that a denominational one. Through church affiliations we are able to do many things easily that otherwise would be difficult.

It is easy to appeal to the women's societies in the churches for delicacies or their equivalent in money, and over \$2,700 in money has been collected in this way in the last five years—my period of presidency—while the value of the articles contributed would easily double that amount. The same may be said in regard to collections through the Sunday-schools for the support of free beds for children. Fifty schools are now interested in endowing a bed in perpetuity in the children's ward, and in two years more than one-half of the necessary \$5,000 has been given.

And to the women of our churches do we appeal for the Thanksgiving linen offering of either the linen itself, bed and table, or cash with which to buy it. To be sure, we know that, while the source of supply is there, the appeal must be well, faithfully, and attractively presented in order that it shall be successful. In these days of well-organized methods of approach in the interests of so many deserving philanthropies, no continued interest may be expected in anyone unless year after year the situation is carefully considered and the appeal tactfully presented. Probably one reason of the success of the woman's board of the Presbyterian Hospital is the fact that the committees collecting money through different channels never feel the plan of any one year perfect and are always on the lookout for ways of improvement.

Money that comes for a specified purpose must, of course, be used only for the purpose for which it has been collected; but, with a work so large as that of this particular board, there must be a considerable sum raised to be expended according to the wisdom of those in charge. To meet this demand three methods prevail:

First, the pledge system. Every member of the board, about 150 in number, is approached in the spring as to her willingness or ability to contribute personally or make herself responsible for a certain contribution during the year, stating the month that it will be convenient to meet the pledge. In the year just past, 89 members responded, giving \$3,090. It is hoped and expected that this amount will reach \$3,500 this year. After a trial of four years we are ready to indorse this method of money raising. It is dignified; it is sure, and assures a permanent income on which to rely. We would advocate it for trial for all boards. Failure has been prophesied for us, but the prophecy itself has been the failure, while the plan is a success.

Second, the associated membership. Here again the appeal goes to the churches, though not necessarily so. Nearly 1,000 members are enrolled, the collection this year reaching about \$1,500. A contribution of a dollar or more constitutes membership; such members are expected at the annual meeting, but are not entitled to a vote.

Third, the dues of our active membership—only \$2.

All this gives about \$5,000, which is in the control of a finance committee, subject to the approval of the board as a whole. The finance committee is composed of the officers of the board and such other members as they call to their assistance. The money collected through the pledge system and associate membership is not spent the

year of its collection, but is held in reserve for use the following year. This makes it possible for the finance committee to meet immediately following the annual meeting and appropriate the amount on hand. It is appropriated for the following uses: social service, furnishings, and training school for nurses.

The social service costs \$1,600 a year. This includes salary of worker and wet nurse, and leaves a small balance, used for immediate relief either as a gift or loan, preferably the latter, and I am happy to say that in most instances the loan is returned. It comes in small amounts, and often takes a long while, but it comes and is an encouragement to further activity along the same lines. It also speaks well for the wisdom and efficiency of our worker, Miss Jessie Breeze, and those who preceded her, Miss Ellen Persons and Mrs. Olive Hazlett, for some of the money now received was loaned five years ago, when the woman's board of this hospital, as pioneers in such work in hospitals, established social service. By vote of the board last October the work is now a department of the hospital, under the control of the superintendent, but supported by the woman's board.

The second appropriation is for furnishings, for which \$1,500 is set aside, and increased by the Thanksgiving collection and special gifts until something more than \$2,000 is spent in this way. This appropriation is entirely in the hands of a competent committee, that watches the market, gets bids, and buys the best and most suitable for the least money; and the fact that the money is in hand, and bills can be settled at once, gives the advantage of a good discount. Let me say here that in the thirty years of the board's existence no bill has ever been contracted until the money to meet it was in the treasury.

The training school for nurses is ever in mind. Three scholarships are supported at a cost of \$120 As tuition, board, and laundry are furnished the student, the \$10 a month has been deemed sufficient for incidentals. These scholarships are open to missionary students only—that is, young women accepted by their missionary boards, home or foreign, and not necessarily Presbyterian, who, after the probation period, are accepted for training. In order to provide for other students who may become financially embarrassed after entering, a loan fund of an indefinite amount is carried, and any student, on the recommendation of the principal of the school, may receive the benefit. No pressure is brought nor time mentioned as to the return of the loan. It is simply a debt of honor, and to date we have had no occasion to reconsider our action.

In the last three years this board has also paid

\$5,000, one-half the necessary amount, toward the endowment of the Mary Byrne Memorial Room, in memory of the only nurse who has died while in the performance of duty, the remaining \$5,000 to be paid by the Alumnæ Association.

To keep a board thoroughly alive and active, there must never be a dearth of interest, and no sooner was the last payment made on this room, than the board voted to assume another \$5,000 toward the endowment of a room for ministers and missionaries, and a good share of the amount is already on hand.

Nor does this enumeration complete the list of money activities of this board. No one living in Chicago can be unmindful of the day set apart for children by the Chicago Children's Benefit League—to which belong thirty-five charities, approved by the league—"Tag Day" in October; it is truly a wonderful day and yields a large harvest to its workers. It would be difficult to find a more carefully planned, systematic method of obtaining from a community in small sums so large an amount of money, nearly \$60,000, in one day. It is hard work, and not always pleasant, but not nearly so disagreeable nor fraught with such disastrous results as some of the press would lead the public to think.

Many are the touching incidents, the words of thankfulness that come to the ears of the workers from those in humble life, who in this way have an opportunity of showing gratitude for benefits received by their children. The members of the woman's board of the Presbyterian Hospital who are not able to respond to the pledge system generally render service on that day, and many do both.

All this activity on the part of women realizing the importance of their work brings to the hospital about \$12,000 annually and over \$60,000 in the last five years.

But I would not have anyone think that the only service that can be effectively rendered in such work must have a money basis. Far from it. There is the service of sympathy—the visiting those in distress of mind as well as body, to whom words of comfort and cheer are as necessary as the science that leads them back to health. The chaplain has his place, the sympathetic friend hers. One willing to perform a little task—write a letter, read, or supply any need the occasion demands. A hospital without a woman wishing to do and suited for such services is to be pitied.

Then, too, there should be the time of recreation, when all who are able can be brought together to laugh. This means a willingness on the part of a certain number, who, no matter what the deprivation means, forego all personal pleasure in

order to bring happiness to others. The entertainment committee is an important one on this board, arranging entertainments not only for the holiday season, but monthly on Saturday afternoons from October to May, inclusive, arranging not alone for talent, but for helpers to assist in getting the patients to the chapel where the entertainment is given.

During the last few years the board has issued a quarterly called the Bulletin, which will have an historical value, as it chronicles all events of importance.

The question is sometimes asked, What is the relation between the Board of Managers and Woman's Auxiliary Board in the Presbyterian Hospital? My answer is to emphasize the word auxiliary—the woman's board is an aid and we hope an efficient one. Both boards have a distinctive work.

Fortunately for the women, they have no jurisdiction over the hiring of any employee, nothing to do with food supply; all this is controlled by the superintendent. The nursing is under the super-

vision of the principal of the training school, and, when anything comes to the knowledge of any member of the board that seems worthy of consideration, she is expected to remember that the superintendent is the high court of appeal. To him all criticism is to be taken, in order that the matter may be properly adjusted; and the appeal is never in vain, for, no matter how great the pressure of business, the ever courteous superintendent of the Presbyterian Hospital finds time to listen patiently to every tale of wrongdoing. It is not too much to say that to Mr. Bacon's uniform kindly sympathy and courtesy is due a large measure of the success of our work.

Is a woman's board desirable? Our experience gives an affirmative answer—but only when it adheres closely to the lines of work for which it is organized. I can easily imagine conditions when an answer in the negative would be the result. Organized "to arouse and maintain an interest in the hospital" for thirty years, we have worked in harmony with each other and in perfect accord with our Board of Managers.

SCHOOL AT THE MASSILLON STATE HOSPITAL.

Mental Patients Have Classes in Reading, Spelling, Arithmetic, Languages, and Drawing—Patients Take Great Interest, and the Work Is Now an Established Curative Agent.

BY MATHILDE ZUR LINDEN, TEACHER MASSILLON STATE HOSPITAL.

THE school at the Massillon State Hospital has been in session for about six months. In the subjects taught now-oral arithmetic, reading, and spelling, enlarged by oral language work —the pupils are encouraged to relate stories and incidents from their experience bearing on the subject under discussion. Spelling contests and special programs of recitations and songs also promise to prove popular. We find that there is a general interest in freehand drawing and German, which we have tried to introduce. The majority of pupils have also consented to join special classes in history and geography. The reading of stories and singing during the opening period, and occasionally at other times, are enjoyed as they are in any school. We hope to make extensive use of pictures, such as the Perry and Birds and Nature pictures.

It is the aim of Dr. Eyman, the superintendent of the institution, whose heart is in this work, to recall and reproduce as vividly as possible in the minds of the patients the experiences of their former school days, and thereby to stimulate and awaken strong associations in the hope that these may reinforce the stream of thought and help to bring it back to its natural channel. Consequently the school is to be old-fashioned in a way. The better text-books of the old type are to be used in preference to the newest ones. All sane and sensible methods are to be tried, but the insane fads and frills from which the present day schools are recovering will not be tolerated.

There are two teachers, and the average attendance is one hundred pupils per day. Three sessions are held daily—two for women and one for men. Not all the pupils attend all these classes, but all attend some of them. Most of them respond readily when given something which interests them and which they can do without much difficulty.

Things must be varied and made to move quickly in order to sustain interest. The questions and subjects used are made as concrete and suggestive as possible, and the pupils are encouraged to tell the experiences and ideas which the lessons call to their minds.

Each session begins with opening exercises. These consist of songs and piano numbers, fol-



Fig. 1. Massillon State Hospital School-Front view of building

lowed by a talk on something that is of special interest, like the return of the birds, or a story which the teacher reads to the class. They like to listen to the stories. The discipline is not difficult, for those who are able to follow the work do so willingly, and there is a general spirit of good will among them. Those whose condition renders them unable to take any active part are usually content to listen and to be with the others. Some are timid, but reassurance and kindness put them at their ease, and they then respond readily as far as they are able.

The last twenty or thirty minutes of each session are given to calisthenics in the gymnasium. These begin with a march to the music of a player piano. A simple gymnastic drill, with definite commands and without apparatus, follows the march. At the close of the drill the pupils join in such games as "drop the handkerchief," "London bridge," and "fox and geese." They thoroughly enjoy the games.

The school building, which is of brick and well constructed throughout, was erected by patients of the institution. It stands on the edge of a



Fig. 2. Massillon State Hospital School-Class in school room.



Fig. 3. Massillon State Hospital School-Calisthenic exercises.

hill, and below it is a large open field fringed with woods. Here are a tennis court and a ball ground, and, when the weather permits, this space will become an ideal place for outdoor gymnastics and games.

The building has two stories and a large, welllighted basement. At each end there is a wide room. Patients like to come to the library to play checkers, to read the newspapers and magazines, and to write letters.

The school room is like any other school room, except that chairs are used instead of stationary seats. In this room there is a piano, and all the playing is done by patients.



Fig. 4. Massillon State Hospital School-Corner of library.

porch and a wing, with stairways leading to the second floor and to the basement. The basement contains billiard tables and a bowling alley. On the first floor there are two rooms, with a central hall between them. The second floor consists of a single large hall, which is used as a gymnasium. On all sides there are plenty of windows, affording good light and ventilation, and the entire building is well supplied with electric lights and is heated by steam.

One of the rooms on the first floor is used as a class room and the other as a library and reading

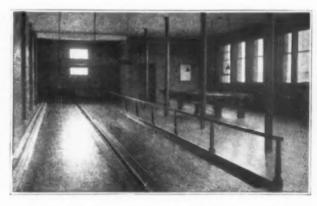


Fig. 5. Massillon State Hospital School-Bowling alleys.

If the school accomplishes nothing more, it does help the patients, for a time, to enjoy the pleasures of school days, and to forget that anything is out of the ordinary.

Speaking at the International Student Conferences held at the University of Pennsylvania recently, Miss Helen Glenn declared that hospitals should be licensed and regularly inspected by a supervising board under the direction of the department of health. Continuing, she said: "The hospital system is intensely individual. The hospital is a little world of its own under military rule and it reflects the personality of its rulers. I favor some central board of control for hospitals, for, although some may be under the best direction, others are certainly mismanaged."

PURCHASE, PREPARATION, AND DISTRIBUTION OF DRUGS AND MEDICAL SUPPLIES.¹

The Pharmacy and Surgical Store Rooms at Johns Hopkins Hospital Are Conducted Under Strict Rules—All Medication Is Carefully Supervised—Methods and Formulas Employed.

BY RUPERT NORTON, M. D.,
ASSISTANT SUPERINTENDENT JOHNS HOPKINS HOSPITAL.

PAPER VII.

THE purchase of all hospital supplies is made through an order, signed by the superintendent or one of his assistants, on a requisition of such goods as are wanted by the head of the department interested. Drugs and medicines are, naturally, requisitioned by the pharmacist, but some medical supplies are requisitioned by the superintendent of nurses.

The central hospital pharmacy is situated in the annex of the administration building, and there are smaller branch pharmacies in the general dispensary, in the Henry Phipps psychiatric clinic, and in the children's clinic. All are under the direction of a nonresident pharmacist, who has two assistants, who alternate in living in the hospital. The calls on the pharmacist at night are very few, so that he can be on duty both day and night for an indefinite period. Besides having general supervision of the pharmacy, the head of the department gives a course in materia medica to each incoming group of probationer nurses. The three pharmacists are registered. The two assistants spend about half the day in the dispensary, since this is open both morning and afternoon. The rest of the time while on duty they prepare and fill the ward and other departmental (except surgery, nurses' home, and laboratories) requisitions that may be handed in to the pharmacy during the day.

The head nurse of each ward keeps a book in which she writes each morning what she needs in the way of drugs or other articles kept in the pharmacy. An employee in the pharmacy collects these books and the ward tray in which bottles and boxes are carried to and from the ward, and takes these to the pharmacy, where the requisitions noted in the books are filled out and the trays are distributed again in the same way they were collected. The trays usually arrive at the pharmacy about 9 a. m. and are returned about 1 p. m. The requisitions of the head nurse are approved by the superintendent of nurses or one of her assistants in her early morning rounds through the wards.

Emergency orders can be sent to the pharmacy

at any hour by a nurse or orderly. Unusual or expensive drugs are secured from the pharmacy only when the requisition has been signed by the superintendent or one of his assistants. All tinctures, syrups, and elixirs of the official products, as well as many other official solutions and liquids (except Brown's, Basham's, etc.) not requiring much apparatus for their preparation, are made up in the pharmacy. The tinctures of belladonna, digitalis, and opium, which have to be assayed, are not made. The latter is sometimes compounded, but only when intended for external use, as in the lead and opium lotion, where it is not necessary that the preparation be exact according to the official standard. Tincture of nux vomica is, however, made, as the extract is assayed, and so the tincture can be readily prepared. The common tinctures made up are the compound tinctures of cinchona and gentian, the tincture of hyoscyamus, and paregoric. The syrup of wild cherry, of the iodid of iron, of ipecac, and the compound syrup of the hypophosphites are the usual ones prepared in the pharmacy. Fluid extracts, since they are very little used here and whose composition is very complicated, and pills are not compounded. The fluid extract of cascara is much used in the hospital, but it is bought in quantity. Powders and ointments, except some of the mercurial which require special machinery for their proper mixture, are also made. The official products necessary for the various preparations are bought wholesale from the large drug houses.

Much of the preparation of these various drugs is done, under the strictest supervision, by the pupil nurses in groups of ten or twelve. Each nurse has her own desk in the pharmacy, supplied with scales and measuring glasses. If she is preparing a powder, she weighs out each ingredient, keeping the set of bottles before her, so that the pharmacist can see that all the weights are correct. If, on the other hand, she has some solution to make up, the various constituents and the measuring glasses used are kept on her desk until certified by the pharmacist. With the assistance of these pupil nurses (probationers, in fact) a great deal of work can thus be accomplished and done with perfect safety, and, what is of still greater importance, in this way the nurses get a

¹This is the seventh of a series of papers on the internal administration of Johns Hopkins Hospital, by Winford H. Smith and associates. Last month, "Food Service:" next month, "The Surgical Service."

most valuable experience in their first year, before going on regular duty in the wards, by making them familiar with the appearance, taste, and smell of common medicines, and this grading of instruction prevents their being taken off the ward work later to learn materia medica.

The resident physician, surgeon, gynecologist, etc., are responsible for seeing that the necessary drugs are kept in the wards. Each ward is supplied with a locked drug cupboard, in which are kept all the solutions, powders, pills, poisons, etc., which may be needed at a moment's notice or for routine treatment. The keys of the cupboard are in charge of the head nurse.

When labels on bottles have to be renewed, it is always done by two nurses—the head nurse and a senior assistant. Before a label is removed a duplicate label is prepared, and as soon as the soiled label has been washed off the bottle by the senior nurse, the head nurse at once applies the fresh corresponding label. This work should never be left to one nurse. To avoid, in so far as possible, human error, the work must be, so to speak, supervised by two trustworthy nurses, and it should not be left to junior or pupil nurses.

Red labels, marked "Poison," are used on all bottles or boxes containing poisons, which, when in solution, are sent to the ward in blue bottles. We have red labels for wood alcohol, chloroform, carbolic acid and oxalic acid, corrosive sublimate, etc. The labels on bottles have the date to indicate when the solutions or preparations were sent to the wards.

Some solutions are made in the wards, where percentage tables for their preparation are on hand to be referred to. This applies to different strengths of carbolic acid and corrosive sublimate, which are used in such large quantities for disinfecting purposes that it is far easier to prepare the strengths needed on the spot than send the big 5-gallon bottles to the pharmacy for frequent renewal.

Carbolic acid solutions and peroxid are sent out from the pharmacy in brown (amber) bottles to prevent mistakes. These bottles can be secured in large size at a moderate price, but other large colored glass bottles are unobtainable, and so the corrosive sublimate solutions are sent in ordinary green (white) glass bottles, with a large poison label.

In a frame, near the medicine cupboard, cards are placed, on which are written the names of all the patients receiving any form of medicine, the drug and its amount and the hour when it is to be given. At the hour marked a nurse takes down the card (Fig. 1) and prepares a tray with the necessary medicines, to be taken from bedside to bedside. These are arranged in order on the tray, and with card in hand she visits each patient who is to be given any medicine. The senior nurse on the ward, not the head or graduate nurse in charge of the ward, is responsible for all the medication—that is, she distributes the medicines needed to all the patients.

The first column, marked "No.," is used to indicate the number of the private room in which a patient may be, and is *not* used in the public wards to indicate the bed, as confusion might easily arise, since the position of beds in the latter is frequently changed for various reasons, such as to bring a group of cases suffering from the same disease together, or for the isolation of a neurasthenic patient at the extreme end of the ward, or to assist in the routine care and avoid extra labor, as in the giving of cold tub baths, when it is all important not to have to draw the tub further from the filling and emptying points than necessary.

In case a nurse feels that a mistake in some way has been made in administering a medicine to a patient—either that the wrong medicine has been prepared, or that one patient has received a dose meant for another, or has received too big a dose of the proper medicine, she reports her error at once to the head nurse on the ward, who, in turn, reports it to the ward officer. He, in turn, after acting as promptly as may be necessary, reports the mistake to the resident of his staff. The head nurse, in due course, reports the error to the superintendent of nurses, through whom it comes to the superintendent of the hospital. The punishment of the nurse is then left to the superintendent

THE JOHNS HOPKINS HOSPITAL.

No.	Name.	Medicine.	Dose.	Hour.
		announced states and announced to the		

Fig. 1. Ward cupboard card-Size, 714x534 inches, with space for 12 names.

ent of nurses, who most thoroughly investigates all conditions surrounding the error.

No medicine is ever given to a patient without an order in a book, signed by a resident house officer (intern), or some one higher on his staff. If the doctor fails to sign his order, which is taken down by a nurse, she has strict orders not to carry it out until it has been signed by a doctor. No cathartic, or purgative, or enema may be given without a signed order.

Besides drugs, the pharmacy keeps on hand thermometers, hypodermic and other syringes, both glass and rubber; glasses for nasal and eye douches, other glassware needed for medical and surgical treatments, measuring glasses, droppers, etc., rubber goods, catheters, Kelly pads, hotwater bottles, etc. Rubber gloves are, however, purchased by the superintendent of the hospital, on requisition from the superintendent of nurses, from various rubber firms, for they do not all make the same kinds of gloves-heavy, medium, and light weights, pebbled, etc.

Rubber sheeting, bed linen, basins, brushes, soap, towels, sponges, and a multitude of household articles are bought on requisition by the matron, and are kept in her department for dis-

tribution, and not in the pharmacy.

Gauze, both bandage and dressing, is bought wholesale direct from the makers. There are very few manufacturers of this material in the country, and it all comes practically from two or three sources. For this we make an annual contract, since the amount we use runs into the hundreds of thousands of yards. We buy it in bolts, roll it, and cut our own bandages in any width wanted.

Surgical instruments are bought as needed, in large part from one surgical instrument maker in Baltimore. Both raw and prepared catgut is used, and is bought by the month. Our formula for preparing catgut is as follows:

Wind catgut loosely on cylinders (ends may be held in place by rubber bands). Soak in solution of 10-percent formalin for six hours (take 100 cc. formalin to 900 cc. cold water). Remove from formalin and wash in running water (small stream and cold water) for fourteen hours. Remove from cylinders, and roll the catgut smoothly on bandage rolls to dry. Cut into desired lengths and wind into coils. Dry thoroughly for ten to fourteen days. The catgut is then ready to sterilize by the "albolene method," which is as follows: Line bottom and sides of basket in sterilizer with filter paper. Fill sterilizer with catgut (quantity desired). Raise temperature gradually to 80° C. in first hour. Keep temperature from 80° C. to 100° C. in second hour. Let tem-

perature drop to 80° C. and put on albolene (quantity sufficient to cover catgut) heated to 80° C. Keep albolene at temperature 80° C. to 100 C°., according to size; if No. 1, for one hour; if No. 2, two hours; if No. 3, three hours. After catgut has stood in albolene for required time, raise temperature to 150° C. When cool, transfer to sterile jar and cover with 95-percent alcohol.

Silver aneurism wire we purchase from a Baltimore clock maker; it comes on a spool, and can be rewound when it gets loose. Silver foil is also bought from a Baltimore firm. Safety pins are bought in large wholesale quantities direct from the manufacturers.

We have a large surgical supply room, where goods bought in large quantities can be stored. This room is in charge of one of the assistants of the superintendent of nurses. Here the gauze which has been used, and then washed and sterilized according to the method devised by the Massachusetts General Hospital, Boston, is made up anew into pads, dressings, etc., by probationer nurses. The gauze that cannot be used in this way is put through a cotton-picking machine, and is used as absorbent cotton. The head nurses make requisitions for surgical supplies, as they may be needed, from this store room, and these requisitions are filled by the assistant in charge after the order has been approved by the superintendent of nurses. All requisitions coming from head nurses must be authorized by the superintendent of nurses or one of her assistants. We have printed forms to be used as requisition blanks, on which all ordinary medical and surgical supplies used in the wards are itemized, so that it is easy to file these requisitions away and at any time determine accurately just how much of any article is used in a given time, and whether there is an extravagant amount used in any ward or department of the hospital.

Much most valuable information and help in the purchase of the best quality of certain hospital supplies is secured by us through the Hospital Bureau of Standards and Supplies, established a few years ago in New York. By paying an annual assessment, any hospital may become a member and obtain from the bureau typewritten copies of all contracts entered into by the bureau, which now serves about forty hospitals in New York and elsewhere. A great many articles have now been standardized for hospital use by the approval of an executive committee of men representing the leading hospitals in New York, and, while it is, of course, impossible or inexpedient for us to always buy goods from these contracting firms, yet we have their contracts to guide us in our purchase of the similar quality of goods from some other

least in keeping us informed at what price some special article can be bought, and also indicate

manufacturer. These contracts thus serve at the quality which is approved by some of the superintendents of the largest hospitals in the country.

A UNITED STATES HOSPITAL SHIP FOR DEEP-SEA FISHERMEN.

All Other Fishing Countries Provide Against the Inevitable Hazards of This Dangerous Calling—Congress Is Again Asked to Act—Public Health Service Takes Initiative.

BY THOMAS W. SALMON, M. D.,

PASSED ASSISTANT SURGEON, UNITED STATES PUBLIC HEALTH SERVICE.

N the stormy expanse of ocean which stretches from Cape Cod to the Great Banks of Newfoundland is carried on this country's most dangerous trade. Three times more men, in proportion to the number engaged, lose their lives every year in our North Atlantic deep-sea fisheries than in the anthracite coal mines of Pennsylvania. Some go down with their vessels (fewer in these days of well-designed, seaworthy schooners than in former years), some are carried overboard in winter gales, when everything is awash in green seas or asmother in white foam, and many go astray in their dories and succumb to cold or hunger. Loss of life from such causes as these seems inseparable from off-shore fishing. The same causes exact about the same toll in the North Sea and wherever else men must earn their living this way. There is, however, a source of loss of life which is practically unheeded in our own deep-sea fisheries, but effectively controlled in those of other countries. Our own fishermen have come to consider death or disability from untreated injuries and illnesses as one of the inevitable hazards of their calling, but the British public, ever mindful of the welfare of the seafaring man, has provided three hospital ships and four dispensary ships to render emergency aid to the injured and disabled fishermen of the North Sea, and the French send a hospital ship all the way across the Atlantic every year to minister to the needs of their countrymen who go from the islands of St. Pierre and Miquelon to fish on the Great Banks of Newfoundland. Not infrequently this French ship is the refuge of sick and injured American fishermen who happen to be near enough, but during the seven months when this ship is on the other side of the ocean, and at all times when they are away from the restricted area in which she cruises, our fishermen must "grin and bear it," and needless deaths and preventable deformities must be added to casualties which are beyond the power of man to prevent.

Until very recently this remarkable contrast between the solicitude for deep-sea fishermen

in other countries and our own indifference could have been said to be the result of ignorance of the need. A few friends of the Gloucester fishermen had called attention to the results of untreated injuries, but the public generally (and Congress particularly) had not had attention directed to the possibility of providing, at small expense, a practical plan for carrying the resources of modern medicine and surgery to those who are injured or who fall ill on the fishing banks of the North Atlantic. This excuse, however, no longer exists. The traditional friend of the American seaman has been the United States Marine Hospital Service, which was established in 1798 for the express purpose of looking after him. Since that time the name of the service has been lengthened and then shortened to its present form, but its uniforms, stationery, and property still bear the fouled anchor—the symbol of the sailor in distress—and the addition of other more important functions has not diverted the interest of the service from its first patient. It was appropriate, therefore, that medical officers of this service should be the first to suggest a definite and practical plan for sending medical and surgical aid to fishermen at sea.

Officers stationed at the United States Marine Hospital at Boston brought the great need for such relief to the attention of the surgeon-general in 1910. They described the means adopted by England and France to meet similar needs, and they presented a carefully considered plan for building, equipping, and operating an American hospital ship. Hon. A. P. Gardner, who represented the Gloucester district in Congress, introduced a bill the following year authorizing the surgeon-general to provide and maintain such a vessel. The friends of the fishermen rallied to its support, and such bodies as the Gloucester Master Mariners' Association, the Boston Fishing Masters' Association, the seamen's missions of Gloucester and Boston, and the Boston Chamber of Commerce testified to the practicability of the plan proposed and to the urgency of the need.

Individuals like Rt. Rev. William Lawrence, bishop of Massachusetts; Jerome Jones, of Boston; James B. Connolly, the fishermen's chronicler; Colonel C. F. Wonsen, of the Gloucester Fishermen's Institute; A. A. Alexander, of the United States Bureau of Fisheries, and John Hays Hammond, all of whom had personal knowledge of the results of failure to provide such means of relief, lent their aid. Congress was not interested, however, and no action was taken. Bills for the same purpose have been introduced in the House of Representatives by Mr. Gardner and in the Senate by Senator Henry Cabot Lodge at the present session of Congress.

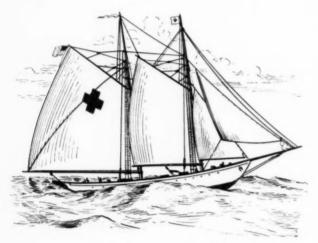


Fig. 1. The proposed hospital ship.

The hospital ships of the North Sea had their origin in the mission ships of the Royal National Mission to the Deep-Sea Fishermen. For a number of years these mission ships followed the British fishing fleets and attended to the spiritual needs of the fishermen. They also looked after their physical welfare as well as they could. The masters of the mission ships had some rough knowledge of first aid, but it was apparent that this was not sufficient to meet the needs. Dr. Wilfred T. Grenfell, then a young London surgeon, spent several weeks on one of the mission ships, and when he returned he made efforts to interest people of influence in this neglected field for medical and surgical relief. Sir Frederick Treves

took up the matter with enthusiasm, and before very long the hospital ship "Queen Victoria" was provided. Other vessels equipped for giving medical and surgical relief followed, and at the present time there are three hospital ships and four dispensary ships constantly on the banks, all of them maintained by popular subscriptions and operated by the Royal National Mission to the Deep-Sea Fishermen. When the English fishermen were fired on by the Russian fleet during the Russo-Japanese War, it was aboard one of these hospital ships that the wounded fishermen received "first aid." In 1892 Dr. Grenfell carried the blue flag of the Royal National Mission to the bleak coast of Labrador, and all the world knows what he has accomplished there in the relief of human suffering.

The French hospital ship for fishermen is also maintained by a mission for seamen. The Society of the Workers of the Sea (Société des Oeuvres de Mer) was organized for the same general purposes as the Royal National Mission to the Deep-Sea Fishermen. In 1896, two years after the society was founded, a hospital ship, the "St. Pierre," was fitted out. This vessel, a threemasted sailing vessel, was lost on her first trip. Her two successors, the "St. Pierre II" and the "St. Paul," had serious mishaps, and in 1899 the "St. Paul" was lost. At that time the work of the French hospital ships might have ended on account of failure of funds, but France was stirred by what had been accomplished. Aid from the seamen's friends and a grant from the Government made a new ship possible. The "St. Francois d'Assise," an auxiliary steel barkentine, was provided, and for the last fourteen years she has carried on the work of relief. This ship, in her annual cruise to the American banks, not only cares for acute illnesses and injuries among men of all nations impartially, but she carries back to France every year many who require continued treatment. She is equipped with a chapel, and a priest, who is one of the officers, looks out for the spiritual welfare of the men. Through arrangements with the French Government she acts as a marine post-office. This vessel is supported par-

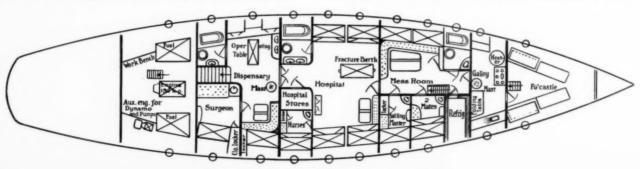


Fig. 2. Accommodation plan of the proposed hospital ship.

tially by a small grant from the French Government, but chiefly through general subscriptions. She is commanded by a retired French naval officer.

Before recommending the provision of an American hospital ship, reports of the work of the English and French vessels for many years were very carefully studied by the medical officers who presented the plan, and a number of masters and owners of fishing vessels and many fishermen were interviewed. There was practically unanimous agreement that a schooner similar to one of the larger and more modern fishing schooners, which go out from Boston and Gloucester, provided with enough auxiliary power to give a sustained speed of at least nine knots an hour under power alone, would be the type of vessel best

pendent auxiliary kerosene engine would furnish electricity for lighting, ventilating, wireless, winches and windlass, and for an especially designed x-ray apparatus. Heating would be by means of a hot water system, the heater being in the galley.

As shown in the plan, the hospital is located about 'midship, thus gaining advantage of the full width of the vessel and the minimum amount of motion. The hospital contains eight fixed berths of special design and one swinging berth for the treatment of fractures. There is also a folding table, a transom, and a medicine locker. The hospital is lighted by a large skylight, which also ventilates it in fair weather, but blowers and air ducts throughout the vessel are depended upon for ventilation, electric motors providing the

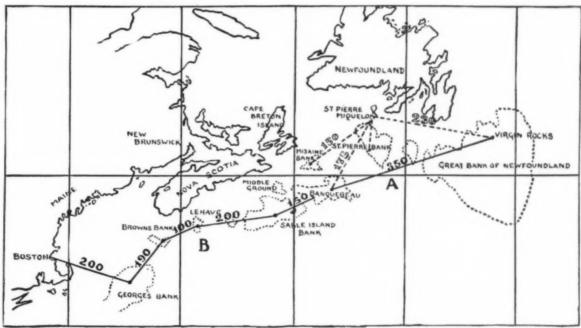


Fig. 3. The cruising ground of the proposed hospital ship. Numerals indicate distances in miles. The light numerals and dotted lines refer to the cruising ground of the French hospital ship.

fitted to perform the duties proposed. It seems to be the general opinion that a hospital ship should conform closely to the type of vessels among which she is to work. It is interesting to know that the hospital ships in the North Sea are identical in construction and plan with the steam trawlers from which they receive their patients.

The vessel suggested, a plan of which is shown in Fig. 0, would be about 126 feet in length on deck, 28 feet in width, and would draw about 17 feet. Auxiliary power would be provided by a kerosene engine of at least 150 horse-power. The use of producer gas, as in the magnetic survey yacht "Carnegie," might well be considered, but there are some disadvantages in this type of power plant, and kerosene has proved very satisfactory in a number of large Gloucester schooners in which engines have been installed. An inde-

power. Aft of the hospital, on the starboard side, is a stateroom for two male nurses and a large locker for hospital stores. On the port side is a bath room for patients, containing a tub, water-closet, and two hand basins.

Aft of these is the dispensary, which extends across the full width of the vessel. On the port side of this compartment are hand basins, a folding operating table, and lockers for instruments and drugs. On the starboard side is a transom and a fixed berth, the latter to be used by the messman. Aft of the dispensary, on the starboard side, is the medical officer's stateroom, and on the other side of the main companionway the medical officer's and nurses' bath room. The engine room, which contains engine, fuel tanks, and the auxiliary engine, is separated from the other parts of the vessel by a watertight, steel bulkhead ex-

tending all the way across the vessel. There is access to the deck from this compartment by means of a companionway, which also furnishes ventilation in fair weather.

Forward of the hospital, on the port side, is the officers' messroom, which also contains fixed berths for the engineer and the cook. Opening into the messroom on the starboard side are staterooms for the sailing master and the two mates. In the forward part of the messroom the refrigerator is located on the starboard side; the bath room for officers and crew is on the port side. There is access to the deck from this compartment, which is well lighted by a large skylight. The galley, forward of the messroom, extends across the entire width of the vessel, and contains a coal range, the necessary dressers, a sink, and a hot-water heater. Forward of the galley is the forecastle, with berths for six sea-The forecastle has access to the deck. Three fresh-water tanks, each having a capacity of 200 gallons, are in the hold under the hospital, and there is plenty of room for stores and provisions in a hold under the messroom. Room is provided for extra sails and boatswain's stores in the lazaret.

The chief advantages of a schooner, compared with a small steamer, would be the low cost of operating, its seaworthiness, and the comfort possible in bad weather. A large steamer would undoubtedly have these advantages and other very important ones, but it is feared that the cost would be considered by Congress to be prohibitive. The yearly cost of operating a 900-ton steamer, with a crew of thirty-four officers and men, would about equal the yearly cost of maintaining the United States Marine Hospital at the port of

The following estimate of the yearly cost of such a schooner as the one proposed was prepared after consultation with many ship owners and designers:

VESSEL AND POWER PLANT.	
Hull, spars, sails, rigging, tanks, and deck gear	.\$17,500
Power plant, complete	. 4,500
,	\$23,500
EQUIPMENT	φ20,000
Boats and boat outfits	.\$ 1,000
Lights and signals	
Lamps and lanterns	. 100
Navigating instruments and charts	. 250
Flags	. 85
Tarpaulins and covers	. 100
Boatswain's stores	. 250
Engineer's stores	. 200
Galley equipment	. 150
Linen and bedding	. 250
Hospital and dispensary equipment	. 500
Medical and surgical supplies	. 250
Miscellaneous	. 265
_	

\$ 3,500

The following estimate of the cost of operating was prepared after similar consultation, Mr. John R. Neal, of the New England Fish Exchange, giving very valuable advice on the subject:

SALARIES.	
1 commissioned medical officer1\$	
1 sailing master	125
1 first mate	75
1 second mate	60
1 engineer	75
2 nurses (at \$50 each)	100
1 cook	50
6 seamen (at \$40 each)	240
1 messman	35
\$	760
RATIONS.	
15 rations for officers and crew ² \$ 7 rations for patients ²	180 84
FUEL.	
4,000 gallons of kerosene ³ \$	240
MISCELLANEOUS.	
Miscellaneous\$	236
Total for one month\$ 1	,500
Total for one year4	.000

The plan of work suggested is to make Boston the headquarters of the hospital schooner and to have the work performed in close cooperation with the United States Marine Hospital at the port. In winter it would be desirable to cruise as far north as Banquereau, making as many return trips each month as possible. In summer it would be desirable to make at least one trip a month to the Great Banks of Newfoundland.

The officer in command of the schooner should be a commissioned medical officer of the United States Public Health Service. He should be responsible for the efficiency of the work of relief, the economical management of the vessel, and the discipline and efficiency of the personnel.

The sailing master should be an experienced master of fishing vessels, the mates should be experienced men, and the crew, as far as possible, should be fishermen familiar with the conditions of fishing off the North Atlantic coast and expert in the handling of dories in rough weather.

The great number of marine disasters last winter turned public attention again to the dangers of the sea. In each of these disasters a new aspect of the simple bravery of seafaring men was shown, and the newspapers took occasion, after every one of them, to praise the traditions of a calling which makes those following it give their lives for their fellowmen as part of their daily work and without a thought of unusual heroism. The "shouting dies" soon after such news is cold,

1Provided for under appropriation, "pay and allowance of commissioned officers and pharmacists."

2Forty cents per diem. It would be better to have rations of officers and crew commuted at this rate.

3Seven hours' "steaming" per diem.

4To which should be added at least \$2,000 for hauling out and re-

but anyone who was thrilled by the tales which came from the sea last winter can help personally to show that the American people as well as those of other lands take thought of the sailor. He can urge his representative in Congress to provide a means for preventing needless deaths and for relieving preventable suffering among those who live up to the finest traditions of an ancient and honorable calling, and who are worthy successors of the breed of seafaring men who carried the American flag all over the world in the great days

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of the American merchant marine. Our deep-sea fishermen cheerfully accept risks in time of peace which would make them heroes in time of war. For many years this Government has provided for them hospital relief *ashore*, where it is often too late to be of service. Is it too much to ask Congress to appropriate an amount equal to the cost of the coal alone in sending a battleship from New York to Key West, so that a means may exist to provide hospital relief *afloat*, when it would come in time to save life and relieve suffering?

SPECIAL BUILDING FOR DOMESTIC EMPLOYEES.

Grace Hospital, of Detroit, Meets a Serious Hospital Problem by Providing Home Recreation and Good Social Surroundings for Its Staff of Workers.

BY W. L. BABCOCK, M. D., SUPERINTENDENT OF GRACE HOSPITAL, DETROIT.

IN June, 1913, the Board of Trustees of Grace Hospital authorized the superintendent to obtain plans, specifications, and bids for the construction of a building to accommodate one hundred employees engaged in the domestic departments of the hospital. The decision to build a unit for domestic employees was the result of the following conditions, which are duplicated in the majority of large hospitals:

1. Lack of sufficient and adequate accommodations for domestic employees in existing hospital buildings.

2. The hospital has been paying over \$3,000 per year for the rental of buildings and rooms in the neighborhood for domestic employees.

3. The housing of domestic employees in rented rooms removed them from the disciplinary control of the matron, especially while they were off duty.

4. As a sequence, residential neighbors occasionally complained of the conduct or retiring hours of the domestics.

5. The matron complained that the level of efficiency, especially in the summer time, was low, owing to a late hour for retiring, which was not under her control.

6. A total lack of social atmosphere, due to the failure of institutions to provide recreation or musements for the household employees.

7. A belief that improvement in the lodging accommodations would enable the hospital to obtain a better class of domestic employees.

SITE

As plenty of ground was available, it was determined to place this unit at a distance from the buildings occupied by patients. The building

was, therefore, located on the southeast corner of the city block, the greater part of which is owned or leased by the hospital. The hospital buildings occupy the north and west sides of the square. The employees' building is fully 260 feet from the nearest building occupied by patients and faces in the opposite direction. The writer is fully aware that the location of these buildings should be reversed, or, in other words, the hospital buildings should occupy the south and east extremities of the square in order to take advantage of sunlight and climatic conditions dependent thereon. The first hospital buildings were originally constructed on the northwest corner of the block, and the south and east property acquired only within the past three years. The distance of the employees' quarters from the hospital buildings insures the sick from disturbance on account of disorderly conduct or noise on the part of domestics, and, on the other hand, provides the domestics with a complete change of environment. The employees' building faces a city park in a residential neighborhood occupied by a high class of residents. The building is cut off from neighboring residences on one side by a park boulevard and on the other side by a 20-foot alley.

CONSTRUCTION.

The employees' building was designed by Albert Kahn, of Detroit, who is well known in the middle West for his artistic exterior treatment of public buildings. The plans were completed and construction commenced early in September, 1913. Owing to favorable arrangements with contractors and good weather, the building was inclosed before snowfall. One floor was occupied on April 15 and the remaining floors are practically



Fig. 1. Grace Hospital-Employees' service building.

ready for use. The construction was also facilitated by the simplicity of the plans. The building is L-shaped, semi-fireproof, contains three floors with basement, and is constructed of hard-faced, dark red brick, trimmed with gray artificial stone. The stairway wells are built of fireproof hollow tile, and all doors entering stairway wells fireproofed with metal and heavy wire glass. The entrances to the building have been arranged so that the sexes do not come in contact while entering or leaving the building.

CAPACITY AND COST.

The building will accommodate 96 people, including a suite for the matron and a wing for the resident house staff. One-third of the rooms are single rooms and the remainder double rooms. No dormitories were provided. The cost of the building without furnishings was \$45,000.

ARRANGEMENTS FOR CLASSIFICATION OF EMPLOYEES.

The short arm of the "L" was constructed for the resident house staff, who are provided with a separate entrance on Alexandrine avenue and a porch facing Brush boulevard. Accommodations are provided herein for twelve residents, the remainder of the house staff having suitable accommodations in the main hospital. The resident staff wing has no communication with the remainder of the building. The matron's, or main, entrance faces Alexandrine avenue at the south extremity of the long arm of the "L," and will be used only by the matron, her assistants, and visitors. The entrance for women domestics is by a sidewalk leading from Alexandrine avenue within a wire fence inclosure running parallel with the alley. The entrance for men is on the opposite side of the building to the rear. The first floor, except the resident staff wing, and the

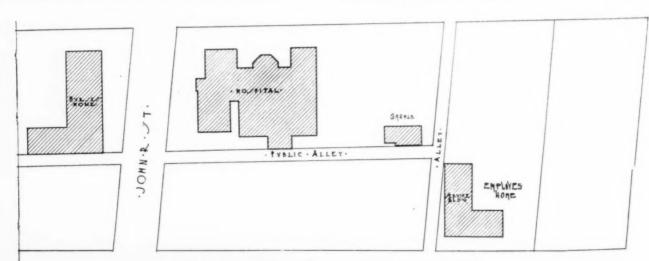


Fig. 2. Grace Hospital-Plot plan of employees' service building.

entire second floor will be occupied by the matron, the matron's assistants, and women domestics, and the third floor by men employees. The third floor of the wing has been designed to accommodate the male clerical force and has separate balconies, toilet suite, etc.

BASEMENT.

A lounging room for men, reached only from their stairway entrance, is provided. This room is 36½x14 feet, contains four windows, and has a 9-foot ceiling. At one end is a toilet room, containing lavatory and closet, with outside light and ventilation. The room will be provided with card tables, games, etc.

A small dining room and kitchen are provided in the basement for the use of the women domestics in arranging for little parties or lunches. These rooms are reached from the women's entrance only. It is not planned to serve regular meals to employees in this building. Dining rooms for employees are provided in the main hospital. The remaining rooms in the basement are linen storage room, garbage and refuse room, trunk room, general storage rooms, and hand laundry, fitted with stone tubs and electric irons for the use of the maids and domestics who wish

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of the main entrance, and consists of sitting room, bath room, and clothes room. The remaining accommodations on the first floor will be occupied by the matron's assistants, linen room girls, seamstresses, waitresses, etc. Each single room has a large clothes closet, and each double room two large clothes closets, with double doors. When these doors are open, the clothes closet is a jog in the room rather than a separate com-

STORAGE

STAFF

BILLIARD

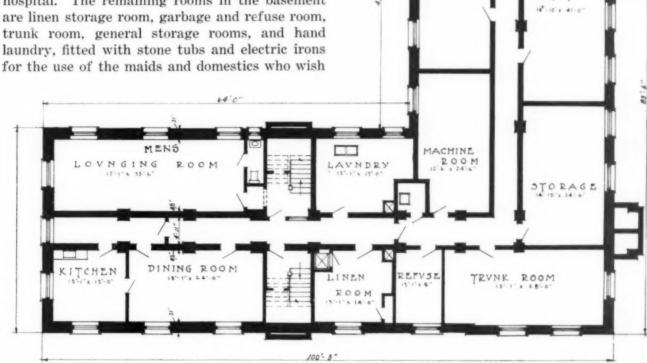


Fig. 3. Grace Hospital-Basement plan of employees' service building.

to do their own laundry work. Another room in the basement has been set aside as a billiard and pool room for the house staff, and will be equipped as their recreation room. This room is 40x14 feet, and has four windows.

FIRST FLOOR.

The house staff wing, which will accommodate twelve physicians, has a sitting room to the right of the entrance and a wide porch, or balcony, facing the east. The matron's suite is to the left partment, thus facilitating cleaning and inspection of closets.

SECOND FLOOR.

This entire floor will be occupied by chambermaids, cleaners, etc., and has ample bath room and toilet facilities. A sitting room is provided for the use of this floor.

THIRD FLOOR.

As heretofore stated, a unit, with separate and ample toilet and bath rooms, balconies, etc., is

provided for the male clerical employees. The main wing on this floor is arranged for the accommodation of housemen, porters, janitors, etc. A recreation and lounging room for these men is provided in the basement, as heretofore described.

UTILITY AND WORK ROOMS.

Linen, mop, and slop closets have been provided on each floor, and a central storage linen room in the basement. A small freight elevator serves all floors, and speaking tubes and floor telephones are also provided. The usual laundry and dust chutes have been installed, the former of which leads to the basement laundry and the latter to the refuse and garbage room.

ROOF GARDEN.

The roof is flat and circled by a 4-foot brick wall. It is intended for use only during pleasant weather and is without covering. The roof garden entrance is from the men's stairway well.

ELECTRIC LIGHTING AND HEATING.

The living rooms are all provided with a 100watt ceiling lamp and a flush side wall receptacle, with a reading lamp socket. All rooms are provided with reading lamps, properly shaded, so that the ceiling light can be switched off and the table lamps used generally. The corridor lights are direct illumination ceiling fixtures, arranged permit of easy cleaning and inspection. The first and second floor corridors are heated by directindirect stacks from the basement. These stacks are provided with condensation coils, receiving the condensation from the steam radiators of the upper floors. These cooling coils remove all heat units from the condensation, which is thence transmitted direct to the sewers as cold water. The superheated air is carried to register-faced openings in the corridor side walls. The steam is furnished by a central heating plant, with a

PORCH

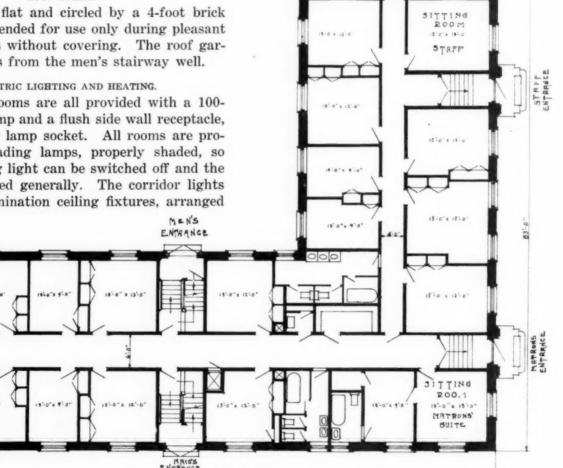


Fig. 4. Grace Hospital-First floor plan of employees' service building.

to deliver the full efficiency of the tungstens. The only ball globes used are on vestibule, porch, and balcony fixtures.

HEATING.

The building is heated by means of direct radiation in all rooms, the radiators being suspended on iron brackets, which extend into the brickwork of the outside walls. The radiators are under windows, and suspended 6 inches from the walls and 8 inches from the floor, so as to

battery of sixteen boilers, located at a distance of one and one-half blocks from the building. Low-pressure steam arrives at the intake valve at a pressure of five pounds and is controlled by a reducing valve in the machinery room. The same central heating plant has furnished all of the main hospital buildings with high- and low-pressure steam for a period of eight years without interruption, with a decided sanitary improvement and financial saving to the hospital.

FLOORS AND STAIRWAYS.

The basement and laundry floors are of cement, with smooth finish; corridor and living room floors, maple; sitting room, oak; toilet rooms, mop rooms, and slop rooms, terrazzo; and stairways of oak, with rubber treads.

WOODWORK AND FINISH.

The woodwork throughout is of plain or imitation oak finish, with fumed oak effect. The living rooms are decorated in soft greens or buff, with 5-foot dado, and ceilings painted white.

The economic and social questions involved in the housing or non-housing of employees is of great importance in the judgment of the writer. After years of experience it has been found that segregation and independent housing of pupil nurses has been an economic agent that has paid large dividends in efficiency. The development of nurses' homes during the past fifteen years has undoubtedly increased the efficiency of the pupil nursing force of every hospital which aims to create a homelike and social atmosphere. The same argument used for nurses applies equally to domestic employees. The material available for domestic work in hospitals in most cities comprises many applicants of foreign extraction and many girls and young men from the country. This material is elastic and pliable, and easily influenced by recreational allurements of city life. Counteracting social influences of the better class are necessary if we value the continuity of service of a trained hospital employee. The average length of employment of the majority of hospital domestics is lamentably short, and, while the short average period is due to a variety of causes, it is quite certain that one of the causes can be eliminated if the social environment of the employee is bettered. Many of these employees are away from home, and the best results can be obtained if a home is made for them.

The financial element is of importance. Employees who receive board at the hospital and room outside must be made an allowance ranging from \$6 to \$12 per month, according to local conditions. If meals are not furnished, an additional \$12 to \$18 per month must be allowed for board. As many of the domestics in the hospital receive from \$16 to \$20 per month as a wage, the anomalous situation develops where the hospital is paying more for lodging and board, etc., than is paid for wages. Estimating the employees' board at 30 cents per day—a figure that is not far from the average—and the room at \$2.50 per week, we find in comparison that the hospital is paying from 25 to 50 percent more than it costs when employees are housed and boarded in rented quarters. This, of course, represents the margin of profit to the landlady or owner of the rented property. When the social and disciplinary benefits of the unit housing of employees are added to the financial economies, a good affirmative showing is apparent. In fact, it would appear that hospitals of sufficient size would be justified in paying interest on a sum sufficient to construct and equip an employees' home in order to reduce the financial burden of rented accommodations, and thereby acquire disciplinary and social control of its working force.

Low maintenance cost per capita has been constantly kept in view in the planning and construction of the employees' building described in this article. The segregation of four classes of employees by means of four internal building units, heating from a central plant, direct electric illumination, the use of reading lamps, and certain construction features should keep the per capita cost of maintenance of the building at a reasonable figure.

DIRT AND MECHANICAL CLEANLINESS.

Surgeon and Housewife Would Differ as to "Dirt"—Cleanliness Begets Cleanliness.

The bulletin of May 8 of the Public Health Service contains, among many other instructive items, an article on the fetish of protected devices of every sort sold as "sanitary." This item closes with the following timely suggestions on "dirt and mechanical cleanliness":

"A word about dirt and mechanical cleanliness. 'Dirt' means various things to the housewife, the sanitarian, the surgeon, the chemist, and the bacteriologist, depending on its composition and location. A surgeon might operate successfully in a room which a housewife considered untidy, but not with a knife which she would pass as clean. A bacteriologist might carry out successful research in a cellar which a dainty housewife would hesitate to enter, but not by using glassware cleaned by her methods. sanitarian must appreciate the various standpoints from which 'dirt' is viewed, and must balance that cleanliness which is practical against what is theoretically desirable. But if his viewpoint is sufficiently inclusive, he will contend that grossly visible dirt, in the sense of the housewife, is always prejudical to sanitary conditions. Even if the dirt does not of itself contain disease germs, its conduces to practices which are menaces presence health. Promiscuous spitting on the floor is admittedly a dangerous practice. Will a person (capable of doing it at all) be more apt to spit on the floor of a neat apart-ment or on that of a dirty, ill-kept one? Will householders be more apt to dump rubbish and filth on the muddy banks of a black, foul-smelling stream, or on the grassy slopes of a clear and wholesome river? There are incor-There are incorrigibles, it is true, with whom the law must deal, but the general run of our citizens are susceptible to their surroundings, and respond to a neat, well-cared-for environment by improving their habits and practices, and incidentally their sanitary condition as a body.

Hospital associations have been created recently and are supposed to care for the sick at small cost to the patient, providing medical services, drugs and necessary hospital care. It is claimed the promotors are diverting legitimate practice from physicians, employing a few at low contract price. It has been but a few years since these hospital associations have increased to such an extent in Washington, Oregon, and other sections that they have begun to attract the attention of state officials.

PURCHASING AND DISPENSING OF HOSPITAL SUPPLIES AND DRUGS.1

Prearrangement With the Hospital Board for the Year's Supplies Contributes Toward Economy, Efficiency, and System—Careful Consideration of Each Article Determines When, How Much, and What Kind to Buy.

BY ELIZABETH A. GREENER, SUPERINTENDENT OF HACKLEY HOSPITAL, MUSKEGON, MICH.

PAPER VIII.

THE subject of the purchase of supplies for hospital use opens up an almost endless field for discussion and consideration. In large institutions this one branch of work often necessitates the employment of a number of experienced buyers, while in the small hospital it goes almost without saying that most of the regular or special material used must be purchased by the superintendent. This important part of the work is really a great test of ability and judgment, both in the judicious and economical purchase of necessary supplies and in the elimination of such articles as are not strictly necessary or of good values.

In the small hospital it is a good plan for the superintendent to make up a yearly estimate of the probable amount of regular supplies needed for the coming year, together with a list of new articles which should be purchased, such as additional furniture or furnishings. This estimate should be carefully made and must include probable purchase price of all articles. This should be presented to the board of the hospital in order that they may have an opportunity to consider in advance the probable regular running expense of the hospital, and the advisability of purchasing the additional new material as recommended by the superintendent. This plan is followed in our hospital. After consideration of the estimate as submitted, with necessary explanation and comments, the purchase of all or of as much of the material as seems advisable is authorized by the board and the matter of purchase generally left to the superintendent.

It is a good plan to have a special time of year for the purchase of certain articles. The hospital in a small city should always consider the advisability of purchasing as much as possible from local dealers, who should be given an opportunity of submitting samples and prices, especially when considerable purchasing is to be done. At the same time the hospital should never be hampered in selection, nor expected to sacrifice quality or economy for the purpose of catering to local dealers, for strict business methods are as necessary and valuable in hospital work as in any other.

The value of having a stock of goods on hand at all times is undeniable. The greatest criticism and almost the only one which can justly be made of this plan is that it leads to extravagance of use. Where the stock can be directly controlled, however, by two or three people, who have the best interests of the institution at heart, and where a proper system and method of dispensing supplies is observed, this danger can be obviated.

Each year we contract with the manufacturers or the large surgical houses for our annual supply of gauze and cotton. This contract is arranged either through salesmen representing the house or by direct correspondence with the manufacturers. In either case samples are submitted and the contract placed with the firm offering the best value at the lowest figure, quality always being considered in this as in other purchases. In these contracts one-half of the amount ordered is delivered immediately, the remainder at the end of six months. Nonabsorbent cotton is contracted for with local dealers in quantities sufficient for six months. The quality of the gauze and cotton purchased was discussed in an earlier paper.

As we have large, commodious, well-lighted store rooms, we are able to purchase a full year's supply of linen at a time and care for it properly. The amount purchased is determined by our yearly estimate. We have tried two methods of purchase—one from samples brought or sent to us, the other by direct purchasing in the large department stores, where special contract prices are offered to institutions and hotels-and find the latter method much the more satisfactory. In purchasing in this way, one frequently sees or finds new things much better fitted for the required purpose than those which it was originally intended to purchase. The amount of linen necessary for use in a hospital always appears incredibly extravagant to the average layman, as few people outside of hospitals realize how inadvisable and wellnigh impossible is economy in this line, and how difficult to conduct a hospital properly without a generous stock for emergencies, which may be called on at any time. We have found that the best economy consists of purchasing one good grade of ready-made sheets, pillow slips, and counterpanes for the entire hospital. While at

¹This is the seventh in a series of papers on internal administration of a small hospital. Last month, "Food Supplies and Service;" next month, "Administration of Special Departments."

first sight this seems like an extravagance, it will be seen that in a small hospital, like ours, where it is possible to have a central linen room, this is an economy. In the distribution of linen from this room the definite order is to always send the newest and best articles to the private pavilions. All linen which is worn, mended, or discolored is sent to the general wards, where it looks infinitely better than the coarse unbleached material used in so many hospitals. If two grades of linen were used, we would be unable to follow this plan, with the result that the private pavilions would be obliged to use up their own old, mended linen, which is very often apt to create dissatisfaction and cause adverse criticism among private patients who are paying extra for special consideration and service.

We have also adopted definite patterns of toweling for different parts of the house. For example, all surgical towels are of crash, with a tiny pink stripe in the edge. No one connected with the institution would ever think of using these towels for other purposes. Dish towels, glass towels, etc., have their distinct pattern and color. This fact assists greatly in the sorting of linen, and insures the towels being kept for their own legitimate uses. The towels used in the private pavilions are of white huck, with blue markings. Those used in the general wards are of huck or crash, which comes by the roll, and is made up in our sewing room. Linen for the use of the nurses is marked in red. In the private pavilions we use linen tray covers and napkins. In the wards we use those of Indianhead cotton, with the name of the hospital in blue lettering.

Blankets are always a problem in every hospital. We purchase those costing from about \$3 to \$5 per pair, depending on the part of the house in which they are to be used. Higher-priced blankets simply cannot be used with any degree of satisfaction on account of the excessive shrinkage in washing, even when done under the best of conditions, while dry cleaning is frequently most unsatisfactory. In the private rooms we use the single pattern blankets for wheel chairs, and gray army blankets for those in the general wards.

While a certain number of ready-made gowns are purchased for use in the operating room, it has been found more satisfactory to have them made. Those purchased ready-made are usually of a heavy twill, which shrink with every washing until they become almost of an unusable size. We buy a fairly heavy sheeting for this purpose, which is shrunk before being used. The gowns are made by a seamstress in our own sewing room, cost us only about 90 cents each, and wear much better than the ready-made ones.

For binders of all kinds we purchase a heavy quality of unbleached cotton, while for laparotomy stockings we use the unbleached cotton flannel. These are also made in our sewing room.

All baby clothes used are furnished by the hospital, and are also made by our seamstress. We have a very heavy obstetrical department, and this one item increases the running expense of this department greatly.

Night gowns, pajama suits, and turkish bath robes are also furnished the patients, and have to be considered in the yearly estimate, as they are usually purchased but once each year.

The nurses' uniforms, caps, belts, bibs, and aprons are furnished to each pupil as accepted into the school. The blue gingham for the uniforms, as well as the white cotton material, is all included in the yearly estimate and purchased with the other linen.

As each nurse enters training she is furnished with an entirely new set of text-books for her own use. If she remains in the school, she is expected to purchase this set of books at the end of the first year, when her allowance starts. By following this plan our text-books cost us very little, and our nurses are put to no expense in the matter until they are in a position to pay for their books. We allow them three months after their allowance starts in which to settle this account. Only actual text-books are purchased, blank-books and other stationery being furnished by the hospital. We also purchase most of the new text-books as they appear and add them to the nurses' reference library.

There is probably no purchasing that in many ways is so trying to hospital superintendents as that of rubber goods. There is more chance for unsatisfactory buying in this one department than almost any other, as it is impossible to prevent the deterioration of rubber. Cheap rubber goods are expensive at any price, and even the high-priced ones are frequently not entirely satisfactory. We purchase most of our rubber goods from two well-known houses, whose names are a guarantee of quality. We buy only those grades of hot-water bags having a two-year guarantee, and do not hesitate to return any defective or unsatisfactory goods for exchange.

The subject of rubber gloves was discussed in an earlier paper. As an accommodation to our staff, we keep on hand a sufficient stock of gloves to meet the requirements for hospital use, and let them have these at cost price. We also have sufficient extra stock for the use of our interns and nurses.

We carry very little enamel or glass ware in

stock, as we find it more economical to order this material as required.

Until quite recently all catgut used in our hospital was prepared from the raw material in the operating room by our surgical nurses. This preparation, however, took a great deal of valuable time, and was always a matter of responsibility and anxiety. In the past few years there has been such decided improvement in the quality and price of the prepared sutures on the market that we now feel greater protection can be afforded both patient and surgeon by the use of catgut prepared in special laboratories for that purpose, rather than by that prepared even under the most careful and painstaking effort in the general hospital. We have, therefore, discontinued the preparation of catgut, and, although the expense is somewhat greater, we feel that the safety of the patient and protection of the surgeon must be our first consideration.

Surgical instruments are furnished by the hospital for the use of our surgeons. When new instruments are needed, a letter recommending the purchase of such instruments as are required is sent by the doctors' committee to the hospital board. No new instruments are purchased without this form of requisition, except the simple ones needed for ward dressings, which are ordered as necessary by the superintendent.

We have an absolutely first-class quality of white hair mattresses throughout our institution. While the initial cost of good hair mattresses is undoubtedly high, they are certainly much the cheapest and most satisfactory in time, as they can be renovated so beautifully and kept so much cleaner than any other kind.

Once each year an order for hospital crockery is sent to a house with whom we have a contract for decorated china for the private pavilions, and plain white ware for the wards.

All ordinary kitchen laundry and cleaning supplies are purchased by the dietitian, who has the charge of all housekeeping arrangements.

Small supplies for general repairs in the hospital or service building are purchased locally by the head engineer after his requisition has been approved by the superintendent.

Any requisition for new or additional equipment about the hospital or grounds is submitted to the building or grounds committee, who either authorize the immediate purchase or take up the matter officially with the entire board.

Each year we plan to purchase a certain amount of new furniture and rugs to take the place of those which it becomes necessary to discard. These new furnishings are placed in our best rooms, and their furnishings in turn moved into lower-priced ones. By this plan all rooms are kept looking well, and shabby and worn-out articles are gradually eliminated.

PURCHASING AND DISPENSING OF MEDICINES AND DRUGS.

In purchasing medicines, drugs, or chemicals, all articles which do not deteriorate by keeping are purchased in bulk. Disinfectants are bought by the keg or in hundred-pound lots. We have one large stock room for articles in bulk, and a well-equipped pharmacy in which all medicines and drugs in common use are kept. The house surgeon has entire charge of this department, and makes out the requisitions for general stock on the last day of each month. Special orders for proprietary medicines are sent to local dealers and charged to the patient. Other medication, except very expensive drugs, is furnished free of charge.

We make up all of our tinctures, homeopathic dilutions, mouth washes, certain ointments, and a number of other preparations. The amount of pharmaceutical work of this order done naturally varies with the ability and energy of the house surgeon, who compounds ordinary prescriptions and dispenses all drugs used.

Each ward or department is furnished with a drug basket and a requisition book, in which the order for all drugs needed for the next twentyfour hours is written up each morning by the head nurse. These books and baskets, containing the empty stock bottles and boxes, are sent to the pharmacy by 9 o'clock each morning and are returned to the ward before 11:30, so that medicines ordered for midday treatments are available by that hour. In the meantime, if any additional drugs or special prescriptions have been ordered by visiting physicians, the head nurse sends for the order book and adds them to the list. No drugs are supposed to be dispensed after the baskets have been returned, except those which have been ordered by the staff later in the day. Unless in case of great emergency, these special orders are placed on a file kept outside of the drug room door for that purpose and attended to by the house surgeon as soon as convenient.

Each ward has its own well-equipped glass medicine cabinet, where for convenience the head nurse is expected to keep all ordinary drugs in daily use. Any special drug or prescription medication is returned to the pharmacy after the patient using it has been discharged. For stock solutions we use the glass-labeled bottles. Carbolic acid is always dispensed in dark-blue rough glass bottles, and nothing else is ever dispensed in bottles of this color.

In each medicine closet we keep ready for immediate use a hypodermic outfit. This consists of

an oblong white enamel tray, on which is a hypodermic, a glass alcohol lamp, matches, spoon, three low, flat glass bottles—one for alcohol, one for sterile water, and one for 1-in-20 carbolic solution—two glass jars about $2\frac{1}{2}$ inches in diameter—one containing gauze wipes in alcohol, the other sterile cotton—a small pair of thumb forceps, and about six glass vials containing the most commonly used hypodermic tablets. When a hypodermic is to be given, the nurse has only to lift out this tray and has everything there needed for immediate and rapid preparation. She is expected to see that everything on the tray is in perfect order before returning to medicine closet after use.

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We have very strict rules in regard to keeping medicine closets locked at all times, and keeping all drugs on the ward inside of the closet. We also have a rule that at no time may a pupil nurse change the label on a bottle or transfer medicine from one container to another.

In general, it may be said that in purchasing for the small hospital the best satisfaction and economy is obtained by selecting a few satisfactory firms where good service and prices are given, and placing with these houses orders in sufficiently large amounts to make them worth handling. Many small hospitals claim that they cannot afford to purchase more than a small amount of goods at a time on account of the expense, yet at the end of a year their bills aggregate a higher total than if they had followed this plan by reason of higher prices paid for small orders of goods and more frequent freight and express charges, and has also greatly increased the work in their bookkeeping department.

Frequently considerable money is spent in the course of a year by the purchase of unnecessary material. Successful buying depends not only in the purchase price of goods bought, but also in the prevention of unnecessary or unwise buying. This work must be supplemented by the teaching of principles of economy in those intrusted with the care or dispensing of supplies and in the prevention of misuse or waste, together with systematic methods of requisition and exchange throughout the hospital.

FIRST AID HOSPITALS FOR INDUSTRIAL PLANTS.

Originated for Reasons of Philanthropy, These Features of Industrial Corporations Have Become an Important Part of Financial Policy and Efficiency.

BY PERRY R. MACNEILLE, NEW YORK.

THE first aid hospital or private hospital for industrial plants has already taken its place among those institutions which advance efficiency in the field of production. While it is true that many of the hospitals so established have been created as the result of philanthropic motives, yet the results obtained now warrant their creation from purely financial considerations.

The Norton Company, of Worcester, manufacturers of grinding wheels and other abrasive products, have some very interesting data bearing on the increase in efficiency of their workmen that has resulted from the work of their hospital. The hospital consists of three rooms in their new administration building. A male trained nurse is in constant attendance, and the shop physician makes regular visits of an hour and a half each morning and afternoon. In the twelve months ending August 31, 1913, 2,201 cases of sickness and accident were treated in the hospital, of which approximately one-quarter were accident cases, practically all of them of a minor nature. It is interesting to note that the majority of cases treated are those of sickness, nine-tenths of them due to slight but troublesome ailments, and that the hospital has been particularly effective in reducing the time lost by the workmen from these causes. Their comparative statistics show that in corresponding periods of 1912 and 1913 the time lost in sickness cases in 1913 is 44.9 percent less than in 1912. In the same period the saving in time lost from accidents is 77.8 percent.

Through the hearty cooperation of the men in coming to the hospital for treatment of all wounds, out of over 1,000 cases treated there has been but one slight case of infection. This has been a great factor in reducing the hours of lost time from accident. In the sickness cases, men come to the hospital prepared to go home, but, on finding that their ailments are not of a serious nature, willingly return to work again. The hospital has been particularly beneficial in the cases of older employees by recommending changes of employment to aid in relief of chronic weaknesses, such as heart trouble and rupture. This lengthens the working days of the man, his remuneration is not decreased, and his experience is conserved for the benefit of his employers.

The United States Steel Corporation has a number of these first aid hospitals at its different plants. They consist generally of one- or two-story buildings containing two to eight rooms,



Fig. 1. Standard Buildings-Typical emergency industrial hospital. General view.

among which are a waiting room, consultation room, operating room, redressing room, x-ray room, nurses' room, storage room, and a morgue. Patients are never kept in these small hospitals—they merely pass through them, and so they have no kitchen or pantry. The yard of a steel mill, with the noises of engines and clanging of steel,

is not a suitable place to keep patients, and therefore these hospitals are used for first aid only.

Standard Buildings, Inc., has designed a hospital suitable for first aid or for more permanent care of patients. It contemplates building the different parts successively as needed, and repeating any or all of them as the hospital grows. This

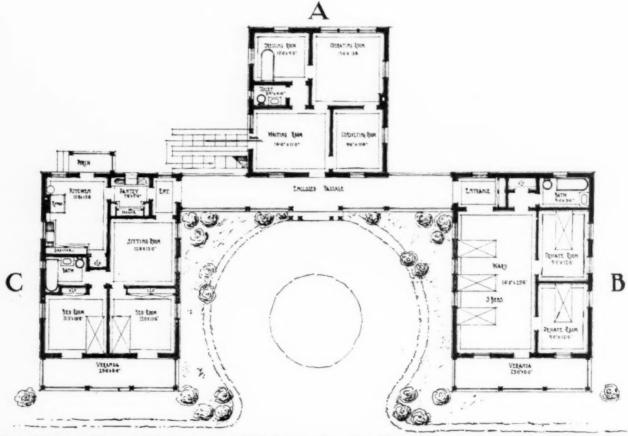


Fig. 2. Standard Buildings—Typical emergency industrial hospital. Floor plan. This hospital plan contemplates building the different parts successively as needed, and repeating any or all of them as the hospital grows. A, consultation and operating building, with morgue in cellar; B, ward building, with separate rooms for those more seriously ill or for living rooms for out-of-bed patients; C, doctors' bed rooms, living room, and hospital kitchen.

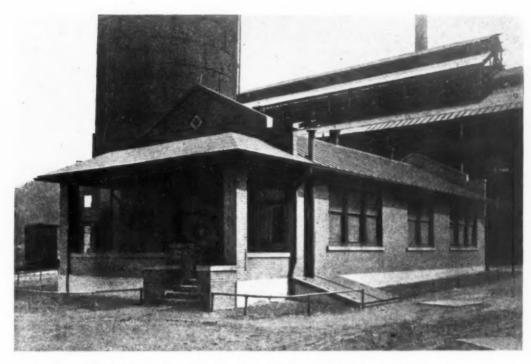


Fig. 3. American Sheet and Tin Plate Company's Emergency Hospital, Vandergrift, Pa. Exterior view, Courtesy of American Iron and Steel Institute, New York.

way of building in sections, which ordinarily would be an increased expense, coupled with other disadvantages, is the reverse in hospital construction, where a number of separate wings, surrounded almost entirely with light and air, are preferable to the same accommodations in a single building. The problem which this design meets is one of inexpensive construction, which will be

of terra-cotta block is that the familiar types are intended to be covered on the outside with cement stucco or veneered with brick, and covered on the inside with plaster. This materially increases the cost of the building. "Tex-Face" blocks are finished on the exterior with an attractive mat surface similar to face brick, which needs no covering, and they are finished on the



Fig. 4. Norton Company's Emergency Hospital—Dressing room.
Courtesy of American Iron and Steel Institute, New York,

suitable and durable, and which will have an architectural merit which will enhance rather than detract from its surroundings.

The material of the walls is of hollow tile blocks in the shape of bricks, but of much larger units and known as "Tex-Face" tile blocks. The difference between these blocks and the familiar type



Fig. 5. Norton Company's Emergency Hospital—Laboratory, looking into operating room. Courtesy of American Iron and Steel Institute, New York.

inside with a semi-glaze which gives a smooth surface and one that is easily whitewashed. This makes sanitary walls, which are less expensive, are fireproof, and are more durable than plaster. The hollow spaces in the blocks give the best known insulation against the transmission of cold, heat, or moisture.

In the plan illustrated herewith the first section built would be the central one, known as "A," and for first aid work it would be the only one that would be needed. It contains a waiting room, where men reported by their foreman for the sick list wait to receive the examination of the doctor, which is made in the room adjoining. Any slight operation or dressing of wounds is performed in the operating room, which is situated in the back, with large windows, and adjacent to a room where ordinary baths or baths for medical treatment can be given. This bath room can also be used as a robing or redressing room. The toilet and wash room is equally available to the surgeons and patients. From the waiting room an inclined plane leads to the cellar, over which stretchers can be easily rolled. The cellar contains, besides the usual space for heating and storage, a room for

Section "B" is the ward section, and is connected with and dependent on section "A." It has no cellar, although there is a concrete floor beneath the wooden floor for sanitary purposes, and it receives heat from a central plant in section "A." The two private rooms may be used as dining room and a sitting room for out-of-bed patients, or as segregation rooms for those patients with the more serious illnesses. They are not intended as private rooms in the sense that they will be reserved for a better class of patients, and for that reason they open directly into the ward, so that the attendant nurse can more readily give attention to their occupants. The bath room is convenient for the use of all, and yet sufficiently retired. The closet is for the storage of linens and hospital supplies.

Section "C" contains the kitchen and pantry for the hospital. Food wagons can be rolled into the pantry and ladened with the requisite dishes and food, and then rolled to the ward. In this wing are also bed rooms, a sitting room, and bath for the resident surgeons or doctors. They use the sitting room also as dining room, where they can be easily served from the pantry. Doors from the bed rooms open directly on a private veranda, and these may also be used as outside doors, so that the resident doctors can enter their apartment without going through any portion of the hospital itself. Where these rooms are not needed for doctors, they can be used for out-of-bed patients.

While there are many elaborations in this plan which would be possible, and, in a case where more expense is warranted, would be desirable, yet in this plan the essentials are provided at a cost which will induce the building of these hospitals even in relatively small plants. It is estimated that section "A" can be built for between

\$2,000 and \$2,500, and the entire group for about \$7,000, so that, including the hospital equipment, the work on the ground, planting of shrubs, and building of roads and walks, the entire plant would cost less than \$10,000. The interest on this investment at 5 percent and an ample allowance for repairs and a sinking fund that will pay back the original cost in twenty-five years, amounts to \$1,000 annually, which, on a pay roll for 5,000 men, would be equivalent to a weekly increase for each man of less than one-half a Operating expenses of the hospital and salaries would increase this to three cents, an amount too small to contrast with the benefits gained from such a hospital operated in any reasonably large plant.

PUBLIC HEALTH SERVICE STARTS MORE WORK.

Investigations of Tuberculosis in Cincinnati, Working Women in Thirteen Cities, Garment Workers in New York, and Metal Industries Under Way.

A special bulletin has just been issued by Surgeon-General Rupert Blue, of the Public Health Service, about active operations in the service. There is a ring of business and activity in the bulletin which is inspiring—short and to the point, as follows:

Tuberculosis Among Cincinnati Employees.—Investigations of industries in relation to tuberculosis have been undertaken in Cincinnati, Ohio. These studies include medical examinations of employees engaged in various industries, inspection of morbidity and mortality records, inquiries into sanitary and economic conditions, etc. Three medical officers are now engaged in this work.

Working Women in Indiana.—At the request of the Indiana Commission on Working Women, a sanitary survey of ninety-six factories has just been completed in that state to determine the sanitary conditions surrounding the employment of women in industrial establishments located in thirteen different cities.

GARMENT WORKERS OF NEW YORK CITY.—A more comprehensive investigation is now in progress in New York City, request for which was made by the Joint Board of Sanitary Control of the Garment Workers' Trade. The purpose of this investigation is to study the sanitary conditions of the industry and determine the physical condition of the persons employed in it. Three medical officers of the service are in charge of this work, the temporary services of the necessary number of female physicians having been obtained.

METALLURGICAL INDUSTRIES.—In cooperation with the United States Bureau of Mines, an officer is now at Pittsburgh studying the sanitation of metallurgical plants in that district.

In cooperation with the same bureau, the studies of sanitation of metal mines and the prevalence of lung diseases among miners, previously undertaken, have been resumed. An officer is now visiting the mining districts of Montana, Colorado, and other Rocky Mountain states for the purpose of collecting data in regard to this subject.

The Wills Mountain Sanitarium at Cumberland, Md., which has been unoccupied for some time, has been reopened.

ITEMS IN HOSPITAL EFFICIENCY—PHYSICAL THERAPY.1

Definition—Light, Heat, Cold, Water, Massage, Passive Resistance Exercises—Electro-Therapy Equipment Required—Administrative Technic Most Important.

BY JOHN A. HORNSBY, CHICAGO.

PAPER III.

PHYSICAL therapy may be defined as an attempt to reestablish normal function in a part of the body by artificial stimulation other than drugs, or by mechanical force; and physical therapy is based on the assumption that an organ or a part of the body, once reestablished in its function, will continue its work through the ordinary physiological processes if the disability has been removed.

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A number of agents are employed in the practical applications of physical therapy—light, including isolated ether waves, heat, cold, water, electricity, and mechanical energy.

It is no part of the purpose of these papers to delve into medical science with a view to an understanding of the diseases in which physical therapy may be employed with advantage, nor is it intended that these papers shall be treatises on scientific subjects, which in this case would take us far into the physiological action of various forms of physical agents. It is merely proposed to outline, in as elemental a manner as possible, the equipment that would seem to meet the demands of medical science in the general and the special, in the large and in the small hospital.

Only a very small proportion of patients that find their way into the hospital will require the employment of more than one or two, and these the simplest, of physical agents, in the treatment of the diseases from which they suffer; but every hospital should be equipped to respond to the demands of the physician when occasion requires. The best expressions of physical therapy are not always the most elaborate and costly, and sometimes quite as valuable work can be done with improvised apparatus, accompanied by ordinary common sense.

There is an immense amount of nonsense involved in the employment of physical therapy purely for the psychical effect on the patient. A breeze from a static machine, that will raise the patient's hair on end and send cold chills through the body, is likely to impress a nervous, hysterical patient far more than would be justified by any actual service of that sort of treatment; but when we talk about physical therapy we are not thinking in terms of psychology—for such purposes the

ingenious physician will find or indicate his own medium.

Let us, therefore, take up, one by one, the physical agents themselves, and discuss briefly their employment, and the equipment needed for the purpose.

LIGHT.

Of all the physical agents, light is probably the least understood, and less accurate information is at hand concerning any physiological effects that it may have. We can hardly class under this head the "X"-ray or "N"-ray, which we might refer to as alkaloids of light. We know how the x-ray is employed, and discussion of x-ray equipment would not be profitable at this time, nor the terms of its employment in the treatment of disease. That would be a large book in itself, and would take us into speculative fields unwarranted by our present purpose, and the same would be true of the Finsen light, the ultra-violet ray, and such ingenious devices as the old-fashioned "blueglass" treatment. We do not know enough about these forms of therapy, and their efficiency is highly problematical and is now in course of evolution, so that the physicians in a given hospital would be the best judges as to what they would require and the mechanism in each, and such cases would be special to the occasion.

Otherwise it is highly problematical whether light has any specific therapeutic value, although there is no doubt that light, in a broader physiological sense, is one of the most important factors in health, in preventive medicine, and in the cure of disease, but this implies sunlight in the abstract. Sunlight, as we know, is a definite destroyer of microorganisms and is probably the best antiseptic that we have, and claims have been made, if not yet wholly justified, that sunlight has a specific action as, for instance, employed in the so-called heliotherapy of tuberculosis. In this particular treatment, patients, or rather their active foci, are exposed directly to the sun, and, without any question, preliminary reports would seem to justify a belief that sunlight has some specific action in dissipating the microorganisms of the disease, but no equipment is required except sun porches, and a proper adjustment of the bed clothing and wearing apparel of the patient.

Electric light cabinets, no doubt, owe their efficiency to the confined heat of the electric lamps.

¹This is the third of a series of eight papers discussing the various factors in hospital efficiency. Last month, "Hospital Pathology;" next month, "The Hospital Dietary."

HEAT.

Heat is perhaps the most universally employed therapeutic agent. Heat may be divided into two forms-wet and dry-and each of these may be subdivided again into heat of moderate degree and of high degree. Dry heat is applied as sand bags, sacks of hot salt, and hot bran. Heated flannel cloths are applied to the face for toothache and neuralgia, and no expensive apparatus or equipment is required, although various manufacturers have attempted to devise what they call thermostatic pads for developing various degrees of dry heat. In principle these pads are most excellent, and ought to lend themselves to a wide range of usefulness. Up to this time, however, there has been a question about the control resistance in the thermal pads, and only now are we beginning to develop something that gives promise of better control than that of the past.

Wet heat of low temperature is employed in the form of poultices, fomentations, and wet dressings. These do not require any equipment, and any hospital can meet a physician's requirements for any of them.

Dry heat of high temperature is not employed for any considerable number of purposes, excepting in the form of an actual cautery intended to destroy tissue, and this form of heat comes from the cautery apparatus that belongs to surgical equipment, and it will not be necessary for us to dilate on this. A lesser degree of heat is employed in what we call the baking process—for neuritis, the rheumatic affections, gout, and the like. The apparatus for this purpose has been extremely expensive up to this time. There is about to be placed on the market now a small, portable electric light cabinet that can be immediately adapted to any part of the body, one or both lower extremities, or any part of the trunk, by quick rearrangement of the device. In this form of heat, temperatures can be maintained, and are called for by doctors, up to 400 degrees Fahrenheit, but the heat must be employed in the very driest form or patients will be badly burned. Most of these baking devices are of European make, more especially French and German, and they are heated either by electricity or gas. Each device is fitted for only one joint or one part of the body, and they cost from \$75 to \$250 each, and the hospital that wanted to keep an equipment that would bake any joints of the upper or lower extremities, or a part of the trunk, abdomen, or thorax, or neck, or back, would require an expenditure of about \$1,200. If the new American device noted above proves successful, the same effects can be produced on any part of the body at will for the expenditure of approximately \$75. Wet heat of

high degree is not employed in therapeutics. In hot water irrigation sometimes a temperature of 140 degrees is called for, and it is this sort of treatment that nurses learn to dread because physicians themselves are poor judges of what a tender surface will bear. Physicians have been known to call for 140 degrees Fahrenheit for water for vaginal irrigation, during which the vagina is kept open by a speculum. It is practically impossible to irrigate a vagina with water at this temperature flowing over a speculum, under which the tissues are so pressed upon that the circulation is impeded, without burning the mucous membrane. Without any question, a vaginal douche can be given with water at 140 degrees if no speculum is employed, because the blood stream, changing constantly, keeps up a flushing of the mucous membrane and prevents burning. One hundred and twenty degrees is as high as an irrigating water ought to be where it flows over a tensely held speculum, and even that temperature has been known to burn a patient.

COLD.

Cold is usually employed for the purpose of contracting the capillaries. This, of course, is apart from the use of solidified air or carbon dioxid frost, which are employed as an accurate and painless method of cauterization. For this purpose a special apparatus is required, which is generally sold by the concerns that handle oxygen and nitrous oxid for anesthesias and carbonic acid gas for ice machine purposes, and for occasional use in connection with hydrotherapeutic apparatus in the Neuheim bath.

Wet cold is employed in the form of ice caps and ice bags, and many physicians require the application of cloths, or absorbent pads wrung out of ice water, for various purposes. Excepting the ice caps and bags, no equipment is required. We are not here discussing the hydrotherapeutic applications of heat and cold, which we will now take up.

WATER.

Hydrotherapy is one of the oldest forms of physical therapy, and has perhaps a broader application than any others. If we were to go into a discussion of hydrotherapy, it would take us too far and too often into speculative fields.

There is a question whether water as a remedial agent has more than one physiological effect—namely, to dilate the capillaries of the skin and surface tissues, thereby relieving congestion of the physiological centers, the blood being drawn away from these and out into the distended capillaries. Perhaps water in some form has the ad-

ditional property of quieting the nerves by lowering the temperature of the body.

Water is employed, moreover, to lower the temperature in a physical way—as, for instance, in typhoid and in pneumonia, and in other high temperatures, such as sunstroke.

It will not profit us to go into the description of the elaborate hydrotherapeutic installation by which the doctors' demands may be satisfied. Let us content ourselves with a consideration of what we want to accomplish.

1. For the tubbing of typhoids and pneumonias to reduce temperature, we may use the fixed bath, in which case the patient is carted to and from his bed and lowered into the tub by two persons.

2. By portable bath wheeled about the hospital. Some hospitals have found the portable bath to work well, especially the larger institutions, and they use it constantly. Primarily the portable bath was intended to operate in connection with the permanent plumbing—a mixing valve faucet above to pour properly tempered water into the tub, and a rubber hose connection at the bottom of the tub to let out the used water. A few hospitals have been fitted with rooms in their architecture that will permit this sort of use of the portable tub, but it just happens that it is never convenient to have the patient and the tub at the point of one of these plumbing connections, and so, in even those hospitals where the portable tub has become a part of the standard technic, buckets are used to fill the tub and other buckets to take away the used water, so that the portable tub is an inconvenient method of applying the bath.

The other form of hydrotherapy for lowering the temperature is by wet sheets or frequently changed cold packs. These methods of employment do not require apparatus—only the proper administrative technic.

Douches, alternate hot and cold, or prolonged hot, or prolonged cold, are used for the purpose of bringing about the dilatation of the surface capillaries for the purpose of withdrawing blood from the congested centers. This practice involves a control table and mixing chambers, with a shower crown and needle spray rosettes. Such apparatus is to be had of all the plumbing houses, and need not be described.

Still another employment of hydrotherapy is solely for its psychical or mental effect. In these cases the doctor may prescribe more elaborate technic for the purpose of impressing the patient with what is being done for him. But such applications are matters for administrative improvising, and do not call for elaborate fixtures or equipment.

MASSAGE

The purpose of massage is to stimulate a part of the body by manipulation of the hands. This effect may be brought about either in the skin or muscles of the trunk and extremities, or in the abdominal organs, intestines, stomach, liver, and spleen, by careful manipulation. The purpose is to start the blood stream and set it in motion, so that in the extremities or in the muscles of the body whatever waste products there are lying dormant may be taken up in the blood stream and carried away, and the constant flow of arterialized blood through the parts will excite a torpid metabolism and stimulate natural function.

The manner of applying massage will depend very much on the condition of the patient, the part involved, and the diagnosis of the disease, all these factors giving rise to special technic in manipulation.

PASSIVE RESISTANCE EXERCISES.

There are many heart cases, especially old persons, that will not admit of voluntary or any sort of violent exercise. For these cases Dr. Schott has prescribed passive resistance exercises, and Dr. Oertel has modified these by what he calls "walking exercises." In the administration of this kind of therapy the operator moves various members of the body without voluntary action on the part of the patient—in the beginning the patient need have no part whatever except to relax. A little later he is asked to resist the movements of the operator in the manipulation of the extremities, and by easy stages the patient progresses until he can take voluntary exercises. No apparatus is required in any of these exercises until the patient begins to take voluntary exercise, and for this stage elaborate equipment has been devised at different times by different physicians and manufacturers. The intention in most of this elaborate apparatus is to find something that will be comfortable and agreeable for the patient, and that will move the parts of his body and stimulate the various functional organs without discomfort and distress to him. Under this head may be classed the so-called "Zander apparatus" and the various mechanisms to be found in gymnasiums. This apparatus may be simple or elaborate, as the institution may desire.

ELECTROTHERAPY.

Electricity is employed in therapeutics in several ways.

- 1. It may be used in the shape of the electrocautery.
- 2. In the form of electrolysis, expressed in an infinitely small quantity of direct current electricity continuously applied.

3. As an expression of cataphoresis—a direct current of small quantity, employed to bring about what we know otherwise as osmosis.

4. As a direct stimulus to nerve ends, by which the movement of the muscles is effected. This form is used for the treatment of paralysis of various sorts, and it is intended in its use, by the very intensity of the energy applied, to create artificially a function in a muscle over which the patient himself has no control.

For the employment of electricity in any form and to any extent that may be called for, only the ordinary medical battery is needed, and the absolute necessities in such a battery are that it shall be designed to give off either a direct current or an alternating current, and that there shall be measuring apparatus in the circuit that will accurately measure the quantity and pressure; that is, the amperes and volts of the current used in the "dosage." A simple form of this battery can be bought for \$20, and the best form for about \$75 or \$80.

ROUTINE DISINFECTION OF RAILROAD COACHES.

Southern Railroad Company Does the Work in a Practical Way—Example for Others to Follow.

There is a vast difference between the ideal or technically correct way of disinfecting things and places and the commercial or practical way; yet large commercial organizations, such as public carriers, usually have highly paid and good men at their disposal, and hence the way they approach the problems is entitled to respect.

The Pullman Company and the Southern Railroad Company have established a technic for disinfecting all classes of passenger coaches at Asheville, N. C. The methods employed at this particular point are of more than ordinary interest because thousands of tuberculosis patients are carried on these cars to and from Asheville and the neighboring mountain resorts.

Past Assistant Surgeon A. D. Foster, of the Public Health Service, has reported on this disinfection in the following formal communication:

Upon arrival in Asheville, as soon as the passengers have disembarked, the car is shunted to a side track in the railroad yards. This track is used exclusively by cars undergoing cleaning and disinfection. On each side of the track is a platform several hundred feet long and built on a level with the floor of the car itself. The ventilators and windows of the car are tightly closed, the berths are taken down, and blankets, pillows, and mattresses are spread out so that the formaldehyde gas may have access to the contents of the car. When this has been done, three galvanized iron pails are placed on the floor of the car, one at each end and one in the center of each car. In each pail are placed 500 c. c. of commercial formalin and 250 grams of potassium permanganate, and the doors of the car are tightly closed. The car remains closed for about twelve hours; the windows and doors are then opened to air the car and to free it from the gas. All carpets, upholstered seats and backs, blankets, and pillows are removed from the car and placed on the platform in the air outside.

Dust is removed from the removable seats, backs, and carpets by means of compressed air, the force of which is so great that it removes practically every particle of dust. The carpets, seats, blankets, etc., are left out on the plat-

form in the sun and air until the interior of the car is cleaned. The hose furnishing compressed air is then taken into the interior of the car and dust is removed from every part of the interior by this means. A force of car cleaners is then put to work with buckets of hot water, and by means of soap and scrubbing brushes the floor of the interior of the car is cleaned, the woodwork being wiped off with damp cloths.

Drinking-water tanks and spittoons are taken out on the platform, where they are cleaned. The water tanks are scrubbed inside and out with hot water and sapolio, rinsed with clean water, and then placed over a steam pipe and sterilized with live steam. Spittoons are first cleaned and then sterilized with steam. A small quantity of formalin solution is also placed in each spittoon

formalin solution is also placed in each spittoon.

Once a month the tanks used for storing water which is used for washing purposes in toilet rooms are flushed

out and cleansed.

After the interior of the car has been thoroughly cleaned, the water tanks are replaced, and carpets, upholstered seats, pillows, and blankets are put back into the car, after having had a thorough airing in the sun. Owing to the care which necessarily must be used in washing woolen blankets, they are periodically shipped to special laundries experienced in this work, where they are washed and combed.

Besides the fumigation with formaldehyde gas, the toilet rooms are cleansed mechanically by scrubbing the floors with hot water and soap, and an acid solution is used to remove stains from the hoppers in the closets.

If carpets are used in the car, they are removed from the car and carried out on the platform, where the dust is removed by means of compressed air. The upholstered seats are also cleaned by the same means.

One of the places in a railroad car where dirt is frequently lodged is behind the steam pipes which run along both sides of the car. It is found that compressed air under a pressure of from 80 to 100 pounds is the best means of removing the dust which lodges in these places. On and behind these pipes is the place where passengers are apt to expectorate, and, in order to clean these parts of the car thoroughly, a hose delivering live steam is carried into the car, and the pipes and the space between the pipes and sides of the car are thoroughly steamed. After this has been done, the floor of the car and toilet rooms are scrubbed with soap and hot water. The hoppers in the closets are steamed and stains removed with a weak acid solution.

The drinking-water tanks are removed and scrubbed with hot water and sapolio, both inside and outside, and are then steamed, care being taken that the steam hose does not come in contact with the interior of the tank.

A Journal in the Interest of Cripples.

A new monthly journal called *The American Journal of Care for Cripples* has been launched under the editorial charge of Mr. Douglas C. McMurtrie and under the general auspices of the Federation of Associations for Cripples of New York. Vol. I, No. 1, just out, gives promise of full occupancy of a field that should be most praiseworthy and profitable. The list of articles in the first number is an indication of the trend of the journal's general activities. Some of them are: "Industrial Training for Crippled Children About Boston," "The Education of Crippled Children," "The History of the Federation of Associations for Cripples," this last by Mr. Douglas C. McMurtrie himself. The Federation of Associations for Cripples is composed of sixteen organizations in greater New York.

Miss Mabel T. Boardman, chairman of the National Relief Board, announces 4,500 American Red Cross nurses ready for service in the event of war with Mexico. The establishment of field hospitals on the Gulf, Atlantic, and Pacific coasts, in charge of army and navy surgeons, is a feature of the society's program. Surgeon-General Gorgas, United States army, will arrange for a meeting of the board to consider detailed plans for action.

CLEVELAND CITY HOSPITAL REORGANIZES.

Homeopaths to Be Eliminated and Western Reserve University to Take Over Staff Service—Nurses Leaving the State of Ohjo Because There Is No Registration Law.

Superintendent Howell Wright and the board of administration of the Cleveland City Hospital have recently completed a reorganization of that institution to bring it abreast of the times; indeed, some of the plans are well in advance of all other teaching hospitals.

The City Hospital, besides being an institution for the care of the city's poor, is a teaching hospital affiliated with the medical school of Western Reserve University, and one of the problems was to create a competent medical staff which should at the same time give representation to the homeopathic school of medicine as well as to the regular school expressed in the university. This knotty problem was solved by delicately eliminating the homeopaths, which was less difficult in that it was shown by the records that the homeopathic members of the staff had not been attending to the business of the hospital, and that homeopathic interns could not be secured, and, when secured, failed to serve their required time. The staff is divided, as is the recent custom, into "chiefs of departments," "assistant chiefs," and "visiting physicians," the chiefs to be on continuous service.

A significant feature of the announcement of the reorganization is the statement, all too common throughout the country, that there are not enough pupil nurses, and not very much hope that there will be enough. This statement is trite, but the further announcement that pupils are going into other states for their training because the state Legislature has persistently refused to pass a nurses' registration law is something to think about. The announcement also states that it is the aim of the management to institute an eight-hour day for nurses. That is also something to think about.

The Influence of Maternity Hospitals.

Until within the last very few years maternity hospitals were regarded by the public as places to which unfortunate women might resort to have abortions performed, and places in which illegitimacy could be concealed. That is the case no longer, and the realization is coming on us that maternity hospitals have perhaps a wider and more far-reaching influence than any other class of institutions for the care of the sick.

Let us imagine, for a moment, a state of things in which every child that was born could have the highest order of scientific skill to meet him on his introduction into this world. In the first place, the mother would be under skillful surveillance during the whole time of her pregnancy, so that her health and strength could be conserved, not only for her own sake, but for that of her child. The bacteriological conditions in the outlet through which the new-born must pass would have been analyzed, and, if there were manifestations of an infection, such as gonococcus, precautions would be taken so that the child would not be infected at the time of birth. The eyes would be given that immediate attention that science has prescribed and that we now know is preventive in almost all cases if properly employed. If the trained obstetrician were in attendance on every case, any deviation from normal conditions in the child would be at once recognized, imperfections noted, physiological and anatomical defects

marked and written into the history, and proper measures could be immediately taken to give the child such attention as would be most likely to offset or overcome or cure the condition.

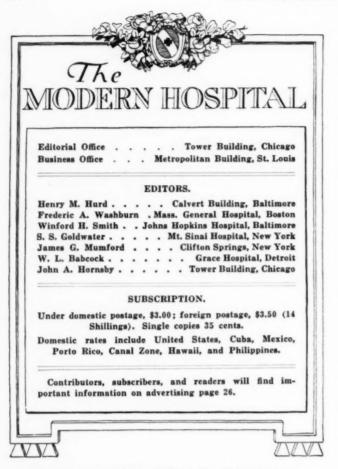
If every woman during her confinement were given the benefit of proper scientific skill, terrible and costly chronic diseases would be prevented in a class of people to whom we must look for our future citizens. How many women, especially in the stratum of society that has to employ midwives, carry a torn perineum or a lacerated cervix away from their first childbirth? How many of these women suffer ever afterward from subinvolutions, endometritis, which is all but incurable, versions and flexions? How many of them are the victims of displaced abdominal viscera, ptoses, due to want of proper bandaging, and due to too early getting out of bed? It would be impossible to calculate how much of the so-called "race suicide" is due to bad medical service to women in their confinement.

If we could know just exactly how many of the diseases of child life and adult life, and how many of the chronic invalidisms among women, are due to bad obstetrics, and improper handling of women in confinement, the figures would no doubt appall us.

Nearly every country in Europe—indeed, every civilized country on the globe—is beginning to wake up, and to treat this problem with something like the consideration due to it. America, of all the civilized nations, is lagging behind. Our laws concerning the practice of midwifery are lax, where they exist at all, and their enforcement is even worse; and, of the disgraceful conditions in this country, the city of St. Louis, by the recent investigations of the New York Committee for the Prevention of Blindness, and reported in a bulletin reviewed by Dr. Hurd on another page, shows the most disgraceful conditions; 75 percent of the women of St. Louis are attended by ignorant, filthy, and callous midwives.

There are a few very excellent maternity hospitals in this country, and many general hospitals in which there are very excellent maternity departments, presided over by skillful and scientific men and women. There must be more of them. It just happens that this problem is an active and vital one in the city of St. Louis just at this time. In this city is a maternity hospital that is doing a fine service on a small scale, but there are several institutions that are doing makeshift obstetrical work. Why can it not be brought about that the people of this city will rally around this one maternity hospital, become interested in its welfare, back up the ambitions and aims and ideals of that fine group of women and those able members of the medical profession who are trying the best they know how, with their limited means, to give their city an adequate service to the most helpless and dependent and important class of its citizens?

Probably the largest and best equipped hospital in the world for the study and treatment of cancer will be established in New York as a result of arrangements recently made, which will insure cooperation between the General Memorial Hospital and Cornell University Medical College. Already more than \$1,000,000 exclusive of the value of the buildings, is at the disposal of the institutions for research purposes. Dr. James Douglas, copper millionaire, in addition to contributing a large sum to the fund, has turned over to the hospital a half interest in the radium mines developed in Colorado by himself and Dr. Howard A. Kelly, of Baltimore. Those active in the movement assert that the associated institutions will have access to the largest supply of radium available at any one place in the world.



The Human Side of Florence Nightingale.

The recent elaborate and interesting biography of Florence Nightingale by Sir Edward Cook is worthy of great praise because it brings into public view a phase of her character which had been neglected by previous biographers. Notwithstanding her great powers and remarkable achievements, she was, after all, a human being, as we have always suspected, and had many of the characteristics of persons of ordinary clay. She was impatient of delay when she wished to have any duty performed, and had no charity for unsystematic workers, garrulous sentimentalists, or persistent and inconsequential bores. She was frankly annoyed by men who obstructed the car of progress by their excessive devotion to the good old ways of their grandfathers, and did not hesitate to express her disgust with them. She criticised mercilessly the women who assisted her when they failed to apply the teaching of common sense to their undertakings. When a lady at one time wrote that she loved and honored her, and looked forward to seeing her, she instructed an uncle who guarded her correspondence to "please choke off this woman and tell her that I shall never be well enough to see her either here or hereafter." To the secretary of a sanitary association she instructed the same relative to write. "I will give twenty-one shillings for Mrs. S.'s

sake, provided that they do not send me any more of their stupid books, and don't let this unbustnesslike woman write any more of these unbusinesslike letters." Upon the letter of another woman which had grievously afflicted her she indorsed, "Choke her off; my private belief is that she merely wants a chance of getting married."

On a very rambling letter from a would-be nurse she writes, "The curious thing is that she does not seem to know whether it is a parent or a child that she has lost." Concerning a petitioner who sent copies of verses to accompany accounts of his evangelical principles and pecuniary embarrassments, she writes, "This is the third time the man has written. I think it is time you put a stop to him and his poetry." To a very long-winded appeal from a lady who claimed "the thrilling honor of Miss Nightingale's sympathy," she appended the indorsement, "I believe all this, though I don't know the woman from Adam. Send her two pounds for me, at the same time giving her a hint to look at 'Bleak House,' " doubtless with the hope that she might profit by the character of Mrs. Jelleby and Borrioboola-Gha. To a pious lady who had sent her a tract the following message was dictated, "Please answer this fool, but don't give her my address."

It is refreshing to feel that she had the satisfaction of expressing her mind so tartly on occasion with the absolute certainty that her fond and soft-hearted uncle would transmute these biting messages into soothing words and honeyed phrases. We are assured that he was "an old parliamentary hand" and wrote charming letters.

HENRY M. HURD.

The Woman's Auxiliary Board.

In another part of this number of The Modern Hospital will be found a paper by Mrs. D. W. Graham, president of the Woman's Auxiliary Board of the Presbyterian Hospital, Chicago. Mrs. Graham was persuaded to write this paper because it is well known to all who are in touch with hospital activities in Chicago that the board of which she is president has done wonderful work in many directions, and has won for itself a place quite as important, if along different lines, as that of the board of managers of the institution.

Too often women's auxiliary boards are regarded with something akin to horror by the trustees and administrative officers of hospitals, and only too often is this feeling justified by a meddlesomeness on the part of the members that carries them into conflict with those who are primarily responsible for the good order and discipline of the institution. Too often the women, in their

zeal to be useful, are disposed to interfere in details, to supervise the linen rooms, fuss with the kitchen service, and sometimes even go so far as to give orders to the help about the maid and janitor service. Of course no hospital can maintain discipline where this is done.

But we believe that there is a large and very important place for a properly conducted woman's board; indeed we do not see how a hospital can achieve its highest usefulness in the absence of a properly organized group of women who can do "team work" with the other agencies of administration, because, after all, a hospital is a place in which to care for and cure sick people, and the very spirit of the place demands the quick and lively sympathy, the tender, gentle, delicate touch, the wonderful intuition to read a sufferer's longings, that only a woman has.

Mrs. Graham has dwelt lightly on this last high office of her board; she has barely hinted at the personal service that she and her associates are giving. But her story is an inspiring one, and valuable, even if it had no other purpose than to point out the things that a woman's board is not created to do.

Operating Room Rules.

In other pages of this number will be found a paper by Miss Felter, head operating room nurse in the Royal Victoria Hospital, Montreal, on the operating room technic in that institution. In nearly every hospital that pretends to do proper surgery there are definite rules for everything, and every once in a while these rules are revised to conform to new necessities, or to accommodate the surgeons in their constantly changing methods. It just happens that the Royal Victoria Hospital has recently "cleaned house" in the matter of operating room technic, and has prepared rules governing everybody and everything, and Miss Felter has given us these rules through Mr. Webster, superintendent of the hospital.

Not all of us will agree with the Royal Victoria in all respects, as, for instance, about the "home" preparation of catgut. Some of us think catgut is too serious a necessity in good surgery to be subject, in its preparation, to the unreliability of undergraduate nurses, to the likelihood of some little step or some little part of the material being not just right. Temperature control is difficult, and thermostatic devices are often out of order. If our hospital people could see the elaborate, complicated, and highly technical devices employed in catgut preparation by those who make it a business, and could see some of their highly developed experimental work, to determine the

success of their methods, and, above all, if they could see some of the septic effects of imperfect sterilization in the animal work that these concerns do, they would not be so entirely satisfied with "home" sterilization. However, Miss Felter and the surgeons of the Royal Victoria have prepared a splendid set of rules, and our operating room nurses and the surgeons who are deeply interested in the administrative technic of their institutions will find in them much of value and many hints, not the least of which is the necessity to occasionally take stock and bring things down to date in the form of printed rules.

Fire Protection in Hospitals.

In the May number of The Modern Hospital was a paper by Mr. Hejda, chief inspector of fire protection in the city of Chicago, pointing out some of the necessities for fire protection in hospitals, and giving some rules of conduct for administrative officers whose duty it is to surround their patients with every safeguard against fire.

We feel that we cannot dwell too strongly on this matter. Most new hospitals are "fireproof," but the term is at best a relative one; there is no "fireproof" construction against ignition of furnishings, draperies, and accumulations of junk of various sorts in closets, attics, and basements, and a conflagration in any of these can create a panic among helpless, nervous sick people quite as harmful as fire itself.

Then, there are many hospitals that are neither new nor fireproof, and it is positively criminal for boards of trustees to accept sick people in such institutions without providing at least the well-known, inexpensive devices prescribed by professional fire fighters like Mr. Hejda, and the proper drills of the hospital family that will make these devices efficient. It is the bounden duty of every hospital board and every superintendent to think about this subject and to take the proper precautions against a tragedy—and to do it now.

Home for Hospital Employees.

On other pages will be found an illustrated description of a new employees' home for Grace Hospital, Detroit, prepared by Dr. W. L. Babcock, superintendent of the hospital. Dr. Babcock was asked particularly to go into the question of why the hospital decided to inaugurate an employees' home, and to discuss what he considered the deciding factors in the case.

The paper goes into the economic, the social, and the sociological problems, and to my mind develops abundant reasons why every hospital.

should house, feed, and entertain all its employees and exercise constant discipline over them.

This question of the management of employees grows more and more insistent as hospital administration assumes more and more definite form under the analytical lens of our highly developed business era, and hospital administrators will do well to study Dr. Babcock's paper.

JOHN A. HORNSBY.

Index to Volumes I and II of The Modern Hospital.

It was deemed advisable by the editors to begin the volumes of The Modern Hospital in January and July, except in the case of volume I, which included the numbers issued in 1913, September to December, inclusive.

As was announced in an editorial, page 247 of the December issue, it was thought best to print the index of articles for volume I with the index for volume II, which is presented with this issue. This index includes the authors and subjects, with enough cross references to facilitate its use.

Our June Cover Design.

Our cover design for this month is an illustration of the new Robert W. Long Hospital at Indianapolis, Ind. This hospital, the erection of which was made possible by the philanthropic impulses of Dr. and Mrs. Robert W. Long, was presented, fully equipped, to the state of Indiana as the hospital of Indiana University, and is to be maintained by the state. In this instance the medical problem was first outlined, and then the construction of the building was arranged to meet the requirements determined by the solution of the medical phase of the project.

In a report recently issued by the superintendent of Pennsylvania Hospital, "Old Blockley," Philadelphia, attention is called to a large decrease in the number of applicants for admission to the nurses' training school of the hospital. While the regular quota is enrolled, it is stated that it is gradually becoming difficult to secure the most desirable applicants.

Among important and conspicuous events in the social life of Washington, are its charitable entertainments. The First Lady of the Land is prominently identified with such worthy enterprises. Mrs. Wilson not only consents to the use of her name, but attends meetings of organizations engaged in betterment of social and sanitary conditions among the poor. A bridge and five hundred party at the Powhatan for the benefit of Columbia Hospital and a performance at the Belasco Theater were among such entertainments recently. The latter was for the benefit of patients of the Public Health and Marine Hospital Service Sanatorium at Fort Stanton, N. M. The Government appropriation provides only quarters and medical attention at this tuberculosis hospital. The object is to secure funds to help many of these unfortunates to communicate with relations and friends at home, and provide comforts for the sufferers.

COMING MEETING OF THE HOSPITAL SECTION OF THE AMERICAN MEDICAL ASSOCIATION.

Program for the Atlantic City Meeting—"Communicable Diseases and Their Care," "Physical Therapy," "Air Problems in Hospitals," and a Symposium on "Surgery in the Hospital."

It was decided in this year's program of the Hospital Section of the American Medical Association to get down to some specific details of hospital activities—subjects in which the hospital people are deeply interested and vitally concerned.

TUESDAY-COMMUNICABLE DISEASES.

The first day's session of the convention will be opened by Chairman L. B. Baldwin, of Minneapolis, at the Marlborough-Blenheim Hotel on Tuesday, June 23, at 2 p. m. After the reading of the chairman's address, the symposium on communicable diseases will be opened with a paper by Dr. Robert J. Wilson, who has charge of the communicable disease hospitals for the city of New York, the title of whose paper is "The Care of Communicable Diseases in General Hospitals."

Dr. Wilson has had long and broad experience in New York, where the various private hospitals, as well as those that belong to and are operated by the city, have undertaken to care for the tremendous number of communicable diseases that constantly prevail in that great city. The hospital problem, as it is affected by the communicable diseases, is perhaps more insistent in New York City than in any other place in the world by reason of the great foreign population and the crowded poor sections of the city. For years there has been an attempt made on the part of the municipal authorities to segregate the communicable diseases in hospitals provided for that purpose; and, on the other hand, there has been the greatest possible cooperation with the city on the part of the private hospitals to bring this end about, because the private hospitals have been more than anxious to get rid of this extremely perplexing class of patients. The very urgency of these cases, however, has made the problem an extremely difficult one. Dr. Wilson has been in the thick of it, and his paper will undoubtedly go far toward clarifying some things with which the hospitals throughout the country are being constantly vexed.

The second paper on the program will be "The Prevention of Communicable Diseases in General Hospitals," by Dr. D. L. Richardson, superintendent of the City Hospital of Providence, R. I. Every hospital administrator, staff member, and trustee in this country knows about Dr. Richardson's work in the Providence City Hospital as organized and conducted under a plan devised by Dr. Chapin, health commissioner of Providence, and himself. Dr. Richardson's institution is a special structure created for the care of the communicable diseases only. have been two ways of meeting the communicable disease problem in general hospitals: first, by creating possibilities of segregation in the architecture of the building, so that patients can be kept physically apart in separate units, each disease by itself, under the care of people who are isolated from those in care of the other diseases; the second method is to command the segregation of the communicable diseases under a definite technic of administration without reference to the architecture; that is, the people-doctors, interns, nurses, orderlies, maids, and janitors-maintain rules of asepsis and cleanliness and protection that will permit them to visit anywhere in the institution, to take care of patients suffering from any

disease, by merely keeping clean and wearing proper garments and gloves. The Providence hospital has become a noted institution for its care of the communicable diseases under this second method of administration. Dr. Richardson realizes, of course, that a hospital with a large mixed staff or of the so-called "open-door" staff organization, with rotating interns and nurses, and with a low type of constantly changing janitors and maids, could not possibly employ the method in use in his institution, since intelligence, skill, and technic are the very primary factors necessary in its employment. This symposium will be open to discussion, and among those who will discuss it are Gen. W. C. Rucker, assistant surgeongeneral of the United States Public Health Service, whose discussion will take up the topic of communicable diseases as a nation-wide public health problem; Dr. F. A. Washburn, administrator of the Massachusetts General Hospital, whose broad experience in this field ought to make his talk extremely interesting, and others qualified to speak on the subject.

WEDNESDAY-PHYSICAL THERAPY.

The meeting of the Hospital Section on Wednesday will be devoted to a symposium on "Physical Therapy in the Modern Hospital." The papers will be as follows:

"Physical Therapy in Its Relation to the Hospital Patient From the Viewpoint of Internist," Dr. Walter L. Bierring, Des Moines, Ia.

"Six Years' Experiences in the Medico-mechanical Department of the Massachusetts General Hospital," Dr. C. Herman Bucholz, of Boston.

"Applied Physical Therapy," Mr. Peter J. Peel, of Chicago, who appears on the program by special invitation.

The discussion of this part of the subject will be

opened by Dr. J. B. Murphy, of Chicago.

It is not very many years ago since almost the entire stock in trade of the medical man was drugs. Of course, there were plasters and poultices, but even these were not always intelligently or scientifically employed, and almost the whole reliance of the physician was on drugs. This condition has so radically changed in the past few years that the drug department in hospitals has dwindled and the other departments, such as the hydrotherapeutic, the x-ray, and the dietetic department have grown amazingly. It will undoubtedly be the purpose of Dr. Bierring's paper to discuss the uses of physical therapy—that is, baths, douches, packs, mechanical exercises, and those other agencies that are used in the treatment of such diseases, for instance, as diabetes and other kidney troubles, displacements and torpidity and sluggishness of the various functional organs of the abdomen.

Dr. Bucholz has been at the head of the Zander department of the Massachusetts General Hospital for the past six years. That department has an equipment that cost \$30,000, and is made up of vibratory apparatus and mechanical appliances for the movement of various parts of the body and for the treatment of an infinite number of diseases and abnormal conditions. It is employed by the medical staff in the treatment of many diseases, by the surgeons for the correction of all sorts of abnormal conditions, and more especially to restore function in muscles and nerves following fractures and injuries. Dr. Bucholz's paper should be one of the most interesting that this country has had in many a day.

Mr. Peel is a physical therapist of Chicago, whose business it is to work in close touch with and under the direction of members of the medical profession in the employ-

ment of the various agencies of physical therapy in every imaginable diseased condition. Theoretically a physician may determine that physical therapy in some form will be of immense benefit to certain classes of patients. Mr. Peel's paper is intended to tell just what is being done every day with these cases, giving end results.

Of course, we know that any discussion by Dr. John B. Murphy would be illuminating and profitable, but in this particular direction Dr. Murphy's experience has been broad, and his opinions have been thoroughly focused along certain lines. He knows exactly how far he can depend on physical therapy in the after-treatment of surgical diseases and surgical operations. The secretary of the Section on Hospitals was greatly elated to be able to have Dr. Murphy as a participant in this symposium.

THURSDAY MORNING-AIR PROBLEMS.

The morning session of the last day's meeting will first take up the election of officers for the coming year. Following the election will be the symposium on "Air Problems in Hospitals." The papers will be as follows:

"Tests of Ventilating Plants," Prof. F. H. Bass, chief sanitary engineer, Minnesota State Board of Health.

"The Importance of Studying the Actual Condition of Hospital Air," Prof. C. E. A. Winslow, curator of public health, American Museum of Natural History, New York; chairman of the New York State Commission on Ventilation.

"Hospital Experiments With Air," Dr. Winford H. Smith, superintendent of Johns Hopkins Hospital, Baltimore.

"Possibilities of Mechanical Ventilation," Mr. Arthur K. Ohmes, consulting engineer of New York City.

"Comparisons of Old and New Hospitals," Mr. T. J. van der Bent, of the architectural firm of McKim, Mead & White, New York City.

The value and importance of this subject need not be discussed. It will be noted that the men whose names appear on the program in this symposium are none of them members of the medical profession, excepting Dr. Smith, and this symposium has been organized as a part of a program which is intended to carry on the work of studying air problems in the form of a mixed national commission. Already some meetings have been held in this connection, and it is proposed during the Atlantic City meeting to create a permanent organization of men capable of going into a scientific study of air problems for hospitals, sanatoriums, and living houses that will bring some definite scientific results. This symposium is intended only by way of introducing the subject and for the purpose of really presenting the problem in its various aspects.

When the commission is organized on a permanent basis at the Atlantic City meeting, it is intended to add to its membership members of the medical profession and other hospital administrators, besides Dr. Smith, who will have sufficient interest and the technical training necessary to the scientific study.

THURSDAY AFTERNOON-SURGICAL SERVICE.

The last session of the Hospital Section will be held on Thursday afternoon, and it will take the form of a joint session with the Section on Surgery in a symposium on "Surgical Service in the Hospital." The program for this symposium is as follows:

"The Standardization of the Surgeon," Prof. J. M. T. Finney, professor of clinical surgery in Johns Hopkins University, Baltimore.

"Hospital Preparation for Successful Surgery," Dr. Thos. A. Shallow, chief resident physician of Jefferson Hospital. Philadelphia.

"Standardization of the Surgical Clinic," Mr. F. D. Gilbreth, efficiency engineer, New York City, by invitation.

"The Surgical Service in Hospitals," Dr. H. O. Collins, superintendent of the Minneapolis City Hospital.

"Principles of Clinical Organization," Dr. Henry S. Plummer, Rochester, Minn.

The participants in the discussion of these papers will be Dr. L. B. Baldwin, University Hospital, Minneapolis, and chairman of the Hospital Section; Dr. F. A. Washburn, member of the House of Delegates representing the Hospital Section, and administrator of the Massachusetts General Hospital; Dr. Robt. L. Dickinson, Brooklyn, N. Y.; Dr. J. E. Moore, professor of surgery in the medical school of the University of Minnesota.

There are those in the medical profession and among hospital administrators who are of the opinion that surgery has grown so rapidly as a part of hospital practice that it has become burdensome and too elaborate for consistent every-day use; there are those who feel that "asepsis" has become a fetish to the point where immense sums of money are being wasted in the creation of conditions that are unnecessary; there are those who believe that some things done in the name of aseptic surgery are worthless, as, for instance, certain technic incidental to the destruction of various microorganisms.

This symposium in the Hospital Section brings together some of the ablest surgeons of this country and some of the ablest hospital administrators, and it is intended to "thresh out" many problems that have been agitating the minds of both physicians and hospital administrators, and it is to be hoped that it will bring us some new viewpoints, if indeed it does not bring about the creation of an organization of medical men, pathologists, bacteriologists, surgeons, and hospital administrators who can make a thorough study of some of the things that we are doing, in connection with our surgical procedures today, to determine whether they are necessary and right.

Silk Gloves for X-Ray Work.

Silk gloves lined with lead are being made to protect the hands of x-ray operators. Lead-painted gloves and lead-plated gloves have been employed heretofore, but they were heavy, clumsy, and unwieldly. The new glove is of French design and manufacture, and seems to have been tested for resistance to the x-ray. If it does the work for which it is intended, it will be a boon to operators, though its use would have been far more valuable a few years ago than now, because with the higher penetrability with the more powerful tubes, and the marvelous quickness of action in making plates, the great danger to operators seems to have been the long continuance of the action, and not the intensity, that did the harm.

The new home of the Newark (N. J.) Private Hospital is now occupied. The building is a handsome four-story and basement brick structure of modified colonial design. It contains eighty-three rooms and accommodations for 53 patients. Every room is an outside room. A feature of the hospital is suites designed to be occupied by families of patients while the patients are under treatment. Meals will be served in these suites. The new building was planned to give the greatest possible service with the greatest possible economy of space, but beauty as well as utility has been taken into consideration.

NEW YORK HOSPITAL INAUGURATES PENSIONS.

Employees Retired for Long Service or Old Age Are Eligible—Hospital Expected to Benefit by Better Class of Service.

The Society of the New York Hospital has just created and set in motion a comprehensive pension system, and is the first private hospital in this country to take such action. Under the resolution of the Board of Governors, creating the system, the employees of the hospital are divided into two classes: 1, the superintendent of the hospital proper, the medical superintendent of Bloomingdale, the secretary and assistant secretary, the assistant treasurer, and all persons regularly employed in the accounting departments; 2, all other employees of the institutions under the control of the Board of Governors. Pensions will vary in amounts from \$15 up to \$125 per month, based on the average salary for the preceding five years.

From 55 to 65 years are the ages between which employees may be retired, either at their own request or on the initiative of the board, the lower age to carry with it the longer continuous service. For instance, an employee 65 years of age who has served for fifteen years is eligible, but one who is only 55 must have served twenty-five years or longer. Employees retired on pensions may engage in any other occupation which is not prejudicial to the interests of the hospital.

This pension system is to be under the active charge of a committee of three members of the board, but any employee may appeal to the full board, which is the final resort in all cases. The employees do not contribute toward the fund in any way, all the expense being borne by the Board of Governors, and the board announces that it expects the hospitals under its jurisdiction to profit by attracting a better class of employees and by keeping them longer.

The pension system includes the New York Hospital, House of Relief at Hudson and Jay streets, Bloomingdale Hospital for Mental Diseases and Convalescent Cottages at White Plains.

It is claimed for Iola Sanatorium, the Monroe County (N. Y.) tuberculosis hospital, that in the matter of economical operation it ranks second among all such institutions in the United States. The annual report recently issued by superintendent M. E. Leary gives the average cost per patient per day in 1913 as \$2,095, including all expenses of the institution. During the year 381 cases were treated and 36 children were enrolled in the open-air school. Crops to the value of \$505 were raised on the sanatorium land and \$461 worth of eggs came from the hennery. A recent appropriation of \$75,000 will be used this year for the erection of an infirmary to accommodate 100 patients, and it is hoped that a branch for incipient cases may soon be established near the town of Perinton on a tract of land owned by the county. The proposed site comprises a fertile area, with soil adapted to producing all crops needed for the institution.

A children's ward will be added to the Lynn Hospital at Lynn, Mass., this summer. The building, which will cost about \$60,000, will be erected by Henry A. Pevear as a memorial to his wife. It will be of brick, three stories high. A solarium will be in front of the building and will run the entire three floors. On the first floor will be a ward containing 10 beds and a smaller one with 8; also bath rooms, diet kitchen, nurses' duty room, etc. The second floor will contain four wards of 4 beds each and four private wards. The third floor will contain 4 beds and five private wards.

DIRECT SUN RAYS FOR TUBERCULOSIS.

It Is Now Known That the Sun Has a Specific Action on Affected Parts—Description of the Treatment.

In a general way, most people have come to realize what fresh air and sunshine mean for tuberculosis patients, and there is a hazy notion that these elements of nature are indirect and indefinite in their operation, and that their kindly work is done through the inhalation of fresh air filtered through germ-destroying sunshine. Most tuberculosis hospitals nowadays are predicated on the necessity for fresh air and sunshine, but an immense amount of paraphernalia and apparatus have been devised and are in use as adjuncts in the treatment of tuberculosis—all sorts of medication and baths and light effects, and electricity in various forms, and some of the manifestations of physical therapy.

devoted woman, acting merely through one experience after another, has now come to be a definite scientific method of treatment. All along the Mediterranean and on the Adriatic sea, and in various parts of the Alps of southern Europe, are hospitals and sanatoriums where practically the only treatment is sun baths, in which the afflicted children, especially the affected parts of the body, are exposed directly to the rays of the sun. One of these hospitals, situated at Berck Plage, under the control of the general public administration of Paris, and situated about twenty-five miles from Boulogne on the English channel, has just been increased immeasurably in size by the addition of new groups of buildings especially adapted to sun treatment of patients.

Dr. Menard, chief surgeon of the Marine Hospital and director of activities at Berck for the past twenty-twe years, has established a definite technic, not only for his treatment of the patients, but for managing the obstrep-



Fig. 1. Gallery in Dr. Rollier's children's clinic "Le Chalet."

Now it transpires that sunshine has far more than a general effect, and is practically specific in its action, operating directly on the diseased part of the body. Dr. Guy Hinsdale, of Hot Springs, Va., lecturer on climatology in the Medico-Chirurgical College of Philadelphia, writing in the Tuberculosis number of the Interstate Medical Journal, of St. Louis, March, 1914, has a most inspiriting article about heliotherapy, or sunlight treatment of tuberculosis, as it is practiced on surgical tuberculosis of children in the mountains of France, Switzerland, and Italy. Since 1857 something very like sun bath treatment has been practiced in the Alps on tuberculous children, when Mme. Duhamel, who cared for scrofulous children at Berck, wheeled them several times a day to the beach adjoining her sanatorium. In those days the children were given sea baths, their open sores were washed with sea water, and they were made to lie in the sun, many of them improving greatly under this treatment.

By easy stages the practice of those early days by a

erous little sufferers. The children, and adults as well, are taught to practically live in the open air; the training begins with exposure to the air and afterwards exposure to the sunlight, solar radiation constituting heliotherapy. The patients are not allowed to lie in the sun immediately on their arrival at the sanatorium, but are allowed from three to ten days to become acclimated to the altitude and to be trained for the treatment. On the arrival of the patient at the sanatorium he is put to bed in a room; little by little the ventilators and glass doors are opened, and he is gradually accustomed to contact with the air; this is before he is exposed to the free outside air. The next step is to wheel the patient on his bed to the large sun gallery or outer balconies adjacent to the bedroom, and, beginning with one hour the first day and two hours on the second, and so on, the patient comes into full treatment under the sun-bath method. Temperature records are kept, with the pulse and respiration; the blood and urine are examined, and the general conditions noted. The patient



Fig. 2. Five-year-old boy after his arrival at Dr. Rollier's sanatorium at Leysin. He had many bone and skin foci in the region of the right eye; glandular enlargements; tuberculosis of the elbow and of the forearm; had had three previous operations; seven fistulas at the elbow, five on the face; ankylosis of the elbow joint. General condition very bad.

is clothed in linen or white flannel, according to the season; he wears a white hat and is protected from direct sunlight on the face by means of a screen, and wears smoked or yellow glasses.

It seems to make no difference where the disease is located—whether in the hip, the spine, or the cervical glands—the invariable treatment is begun with the feet. These are exposed, at intervals of one hour, five times, and only for a period of five minutes. The next day the legs will be exposed and the same method followed; the third day the thighs as far as the groin for five minutes three or four times. On the fourth day the abdomen is exposed, on the fifth the thorax, when the precaution is taken to cover the heart with a damp cloth. If the condi-



Fig. 3. One year later, complete cure. In place of open wounds, normal scar tissue; healthy and vigorous.

tion of the patient permits, the patient's abdomen and next his back are exposed to the sun, increasing the number of exposures to six or eight; finally, on the sixth or seventh day the neck and head are exposed, with careful supervision.

The whole system of heliotherapy aims at acquiring a progressive pigmentation of the skin. This seems to be the underlying basis of the whole matter. It is nearly always proportional to the resistance of the patient, and enables him to bear the sunlight and cold air in a most surprising manner.

Dr. Hinsdale says that one remarkable feature of the higher Alpine resorts, such as Leysin, Davos, and St. Moritz, is the difference in temperature between the shade and sun; although snow may be lying on the ground, the sun temperature to which the patients are exposed may be



Fig. 4. On arrival at Dr. Rollier's sanatorium patient had pulmonary, glandular, and bone tuberculosis (thirty-two foci), and general condition was very bad.



Fig. 5. One year later, complete cure. In place of open wounds, normal scar tissue; healthy and vigorous.



Fig. 6. Children very ill when they arrived at Leysin, restored to health. Skiing.

 $95\,^\circ$ or $100\,^\circ$ F. The accompanying illustrations show some of Dr. Rollier's patients at Leysin, the method of treatment, and some of his results.

Heliotherapy is not confined to Europe, however, although we in this country did not begin to appreciate sunbath treatment until very recently. With Dr. Rollier's recent record of 1,000 cures out of 1,200 patients, tuberculosis specialists in this country began to look seriously into that method of treatment. Sea Breeze Hospital at Coney Island, New York, has developed the treatment as a definite part of its routine practice, and now the city of New York has established a new location of a thousand feet of beach front at Rockaway Point, ten miles beyond Coney Island. This plot of ground cost the city \$1,250,000. The plans include an arrangement of grounds and buildings which will involve an outlay of \$2,500,000, and there will be accommodations for 1,000 patients in eight pavilions. Contracts for two of these pavilions have already been let, and they will be paid for by a fund raised by the New York Association for Improving the Condition of the Poor. The hospital, when completed, will be turned over to the city of New York, and will be conducted as part of Bellevue and Allied Hospitals. This magnificent philanthropy grew out of what was called the "Poor Joe Fund," originally \$75,000, and with which a most touching story is told.

New Addition to Holy Cross Hospital of Salt Lake City.

Holy Cross Hospital, Salt Lake City, will erect an addition this year, costing approximately \$150,000. B. O. Mecklenberg, the architect, visited a number of the most advanced types of hospitals in the country with the view of incorporating in his plans every desirable feature practicable, and the following description will be of interest:

The foundation of the building is to be of cut brownstone, and the superstructure is to be of concrete, steel, and stone, with red brick facings and gray sandstone and terra-cotta trimmings. Between the new construction and the old building fireproof doors are to be used, while in the interior of the entire structure the most modern fire escapes are to be installed to facilitate removal of patients in case of necessity. The floors are to be of cement, with hardwood covering, and the door and window openings and interior trimmings are to be of quarter-sawed whiteoak.

In the matter of sanitary appliances the last word in progress is to be adopted, including extra large drain pipes, ventilation, vacuum cleaning plant, modern steam heating, a heated screen and glass porch on the north side, two big sun parlors on the south side, tile floors and marble partitions in lavatories and bath rooms, and a new ambulance entrance which will permit of handling patients with the greatest expedition and the least inconvenience or discomfort.

In the electric installations are to be included indirect lighting, reading lights over beds, modern signal system, electric dumb waiters, and electric elevators, with all wiring in conduits.

The entire third floor of one of the wings will be devoted to operating, x-ray, preparation, sterilizing, and recovery rooms, with a laboratory and other accessories, and all are to be of the highest type of sanitary arrangement and furnishing.

In the new basement is to be an assembly room 40x80 feet in dimensions, and especial attention is being paid to the lighting of this, so that it will be rendered as nearly like outer daylight as modern science can make it.

The plumbing is to be of the most modern type, the

The plumbing is to be of the most modern type, the finishings to be in vitreous china and marble, and the piping system of such ample capacity as to avoid any possible congestion through overtaxing.

It has been formally announced by Dr. Richard H. Harte, director of the Department of Health and Charities, Philadelphia, that a campaign is about to be started with the object of soliciting funds for the erection of a suitable Alice Fisher Memorial home for aged nurses. It will be remembered that Miss Alice Fisher was an eminent English lady who came to this country in 1885 and established the Philadelphia Hospital Training School for Nurses, which has been one of the most noted and most successful training schools in the country. This success has been largely due to the imprint of the one who devoted the best years of her life to the foundation of the training school.



Albert Allemann, M. D., Foreign Literature.

Army Medical Museum and Library, Office of the Surgeon-General
U. S. Army.

Frank B. Martin, Domestic Literature.

Army Medical Museum and Library, Office of the Surgeon-General U. S. Army.

The Clinic for Nervous and Mental Diseases at Königsberg (Die psychiatrische und Nervenklinik zu Königsberg). E. Meyer. Arch. f. Psychiat., Berlin, 1914, LIII, No. 2.

Königsberg was the only German university that did not have a psychiatric clinic. Now the city has erected a hospital for the study of nervous and mental diseases. It consists of a main building and two pavilions, the latter containing each 10 beds. The costs amount to 245,000 marks, or 12,250 marks (\$3,000) per bed.

An X-Ray Clinic. A. W. Crane, M. D., Kalamazoo, Mich. American Jour. Roentgenology, March, 1914.

Dr. Crane writes in advocacy of local x-ray clinics. He thinks that an exchange of experiences, the exhibition of good plates and the discussion of their interpretation would do much to educate x-ray operators whose opportunities are limited for observing what others are doing. These clinics, he thinks, might take the direction of actual work on patients in the presence of other workers in the community.

The Zonda Surgical Pavilion (Il padiglione chirurgico Zonda). Ospedale Maggiore, Milano, 1914, II, No. 1.

The Ospedale Maggiore in Milan is so much overcrowded with patients that two benevolent gentlemen, the brothers Zonda, took it on themselves to erect a new surgical pavilion at their own expense. The new building is a three-story structure and is located on the hospital grounds, its front lining Lamarmora street. It has a length of 50 meters. Two wings and a central structure project from the rear frontage. The pavilion contains 120 beds, and the donors expressly stated that at no time it shall be permitted to receive more than 120 patients.

The Drainage Tube in Abdominal Surgery. Joseph E. Adams, M. S. London Lancet, April 25, 1914.

The author discusses his subject from a standpoint that will greatly interest surgical nurses as well as surgeons. There is enough of surgical technic, as it interests assistants to the operator, to warrant reading by anyone who has anything to do with the operation or with the making up of drainage material. Mr. Adams thinks not enough discretion is employed in the use of drainage, and that if there is not a definite area occupied by pus, it will be better not to insert a tube, which may be sufficiently irritant to set up an inflammatory process where there is a fair chance for primary healing.

The Panel Nurse. Brit. Jour. Nursing.

In the April issue the standard of the panel nurse is placed in line with that required of Queen's nurses—the three years' certificate of a good training school in addition to a further six months' special training in sanitation, hygiene, and district nursing. The certificate of the Central Midwives Board is held by many Queen's nurses, and is also a most useful qualification for a panel nurse. If the nursing of the insured sick is to be effective, no lower standard must be permitted. Either in town or country, nurses must be equally qualified for sickness, which is no respecter of persons.

The New Hospital "Piemonte" in Messina (Il nuovo ospedale Piemonte a Messina). Rivista ospedaliera, Roma, 1914, V, No. 2.

After the great earthquake of Messina the Piemontese Central Committee, which rendered invaluable assistance during the great catastrophe, decided to erect a permanent hospital for the poorer people of the unfortunate city. The Government gave the grounds for the new hospital, and the construction was commenced in October, 1910. The hospital is located in the southwestern part of the city. The grounds comprise a rectangle of 21,600 square meters. On all four sides the hospital is bordered by a street. The hospital is built on the pavilion plan and has room for 200 patients. The costs amount to 4,000 francs (\$800) per bed.

Workmen's Compensation Laws—A Comprehensive View of This Complicated Subject. Samuel A. Harper, formerly attorney of the Illinois Workmen's Compensation Commission. Buildings and Building Management, May, 1914.

Mr. Harper, at the outset of his paper, summarizes the mechanical progress of our age that has served to so greatly increase the hazard for workingmen. He reviews present compensation laws which are in force in twenty-five states in the Union. He recites the fact that 50 percent of accidents to workmen are interpreted by the courts to be the fault of employers. He analyzes the laws in the several states in a most interesting manner. The whole paper, which is to be concluded in the June number, will be of very great interest to those who are thinking about social service from the standpoint of employees and improved living conditions for them.

The Sanitation of Comfort Stations. Editorial in the New York Med. Jour., May 2, 1914.

The writer of the editorial suggests, as a preliminary to his argument, that there were an alarming number of typhoid cases in the city of New York during the spring of 1913, "probably the result of contact infection or of food contamination in the home." The writer finds that common towels and common cups are still widely used in the poorer types of hotels and lodging houses, notwithstanding a mandatory sanitary code against such use. He calls attention to the recommendations of the Association for Improving the Condition of the Poor, for the elimination of doors with handles and locks, the provision of soap and water and individual towels for patrons, the supplying of toilet paper and sanitary napkins in the women's stations, to be had by some automatic device; a more thorough soap-and-water cleansing of the comfort station utensils. He thinks, however, that none of these devices will suffice to bring down the morbidity and mortality tables unless their introduction is accompanied, or even preceded, by a greater amount of education of the public.

Possibilities of a Leaky Hot-Water Bag. Emma Gary Wallace. The Forecast, April, 1914.

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The writer tells about a score of things that can be done with a hot-water bottle that leaks too badly to be of further service for its original purposes. It can be made into a container for sand, to be used as a hot application in certain highly sensitized nerve conditions, such as toothache, neuralgia, rheumatism, and the like. It can be made into a sponge holder for travelers who are obliged to put their wet sponge away and don't want it to wet things packed with it. A small quantity of the rubber can be cut off to fit over the opening in the kitchen sink to act as an effective stopper. Small pieces can be cut into washers of various kinds for leaky valves.

The Social Worker's Influence in the Community. Geo. B. Underwood, M. D., Gardner, Mass. Boston Med. and Surg. Jour., April 30.

The writer first defines social service and tells what social service is doing in his own community. He cites a number of individual illustrations, and sums up as follows: "The social worker does much to correct the mistaken ideas of the public, who sometimes practically ostracise the tubercular patient. The social worker should strive to accomplish her ends by tact, constant attention, and friendliness, rather than by making her directions compulsory and thereby creating a feeling of antagonism to her work. That the social worker is a most important influence in a community cannot be denied, and that her influence is educational is recognized, for, as Dr. Cabot says, "the contagion of disease must be opposed by a contagion of intelligence."

Food from the Standpoint of Energy. Graham Lusk, M. D. New York Med. Record, April 25.

"Dr. Mendel has spoken about the limitations of the caloric method of computing nutritive values," said Dr. Lusk, "and yet, all in all, it is the best method. Nature, through the device of appetite, usually provides against the use of wrong food. A man who leads a life of sedentary occupation requires 2,500 heat units, or calories, to maintain his body machinery. He needs also water, salts, proteins, and certain newly discovered substances called vitamines." The writer then discusses the caloric values of such food stuffs as milk, beans, bread, sugar, cereals, pancakes, potatoes, cheese, and meats. The writer discusses the recent work of Becker and Hamalainen, in Finland, to show the caloric necessities of people working at different occupations.

The Value of Small Classes. Edwin W. Dwight, M. D. New York Med. Record, May 2, 1914.

This is a paper read by Dr. Dwight before the Association of Local Insurance Medical Directors in Philadelphia last fall, now published for the first time. The writer's paper really developed the question of the largeness or smallness of the groups of classes of cases on which insurance actuaries are accustomed to base their statistics for insurance purposes. He thinks that, while the actuarial office is one of exact science, it is a mistake to assume that a great number of cases in any one group can give a clearer picture than a few well-chosen, carefully analyzed cases in many groups. He thinks a large number of small groups is of far greater value than a single large group, and that much more can be learned by subdividing groups than by combining them. He thinks, moreover, that individual experiences in the analysis of cases are worth more than any collective experience. The writer gives many illustrations of this in his paper.

Domestic Control in Small Hospitals—Cottage Hospital Bookkeeping. Hospital, London.

The April issue describes a system adopted at Lynn Regis, introduced by one of the honorary officers. Form A consists of a record showing inmates in hospital, with weekly sum contributed by each, in which are given patients' names, days of month, total days resident, amount charged weekly, payment, and total column, respectively. In Form B household expenses by the month, tradesmen's books, household books, petty cash, and total are each given spaces. It is poor economy in small hospitals to purchase in bulk to admit of time for weighing and measuring. Store rooms are commonly bad in small institutions. Small quantities are more likely to be used with care by untrained servants, and the matron will be lucky who has not to depend on unskilled labor in a small hospital.

A Treatise on Flooring Materials. W. M. Hooker, C. E. Real Estate Magazine, New York, April.

The writer is obviously a friend to composition floors, and he begins with a description of their composition, but there are some convincing tables of analysis of various floors in respect to their cardinal virtues, measured in percentages. For instance, in his table of "cleanliness and sanitary appearance" he places composition flooring first, with a percentage of 100; Portland cement concrete, second, with a percentage of 90; terrazzo, third, with 90; marble, tile, mosaic, linoleum, in a descending scale, down to 70, with the wood floors low down on the list, with a mark of 35 for maple, 35 for oak, and 32 for white pine. In the table of "quietness" he places cork tile first, with a percentage of 100; rubber tile, second, with 98; linoleum, third, with 96; composition flooring, fourth, with 75, and the wood floors with 60 for white pine, 60 for yellow pine, 50 for maple, and 50 for oak, terrazzo being last, with a percentage of 0.

A Practical Arrangement of the Various Buildings of a Large Hospital (Die zweckmässige Anordnung der einzelnen Gebäude der grossen Krankenhäuser). H. C. Nussbaum. Heilanstalt, Leipsic, 1914, IX, No. 7.

The pavilion system does not represent the ideal of modern hospital construction. Communication between the various pavilions is unsatisfactory. People passing from one building to the other are exposed to the inclemency of the weather. The pavilion system lacks a large, quiet and shady park, and the small gardens between the pavilions cannot supply this want. There is too much noise and dust, which have an unfavorable influence on the patients. To obviate these disadvantages, all the buildings, which may be either one- or two-story, should be placed without interruption all around the hospital grounds. All the wards and sick rooms should open on the park, while the accessory rooms would obtain the light and air from the outer side. Any form of building may be chosen, either pavilions proper or houses of several stories. Each building should have its own entrance, and be separated from its two neighboring buildings by windowless and doorless walls. On the park side there should be a large, airy hall, which begins at the administration building and passes continuously all around the other buildings. Over the hall would be a large terrace, so constructed that the beds and chairs of the patients could be rolled out from the rooms. If the buildings have more than two stories, a terrace might be attached to each story. From this plan it is clear that a square or rectangular piece of ground is the most suitable for such a hospital. On the outer side the buildings would be lined by streets, and the inclosed grounds would form a park.

Insanity Statistics in England and Germany (Zur Irrenstatistik in England und Deutschland). Dr. Alter. Psychiat. Neurol. Wchnschr., Halle a. S., 1913-14, XV, No. 50.

In England there were on January 1, 1913, 170,201 insane persons in a population of around 37,000,000. In Prussia the statistics of December 5, 1910, showed 160,001 insane persons in a population of 40,000,000 inhabitants. In Prussia there were 39.84 insane per 10,000 inhabitants, of whom 22.92 were in hospitals. England had 46.10 insane per 10,000 population, of whom 29.68 were in hospitals. This difference does not appear very great if we consider that in Switzerland, in the cantons of Berne and Zurich, there were in 1902 85 insane in the former and 92 in the latter canton per 10,000 inhabitants. As to sex, there were in England 21.41 male and 24.66 female insane. Prussia had 20.91 men and 18.93 insane women per 10,000 inhabitants. The greater percentage of female insane in England is probably due to the fact that alcoholism is more common among the women in England and that comparatively a greater number of women work in fac-

The Increasing Cost of Hospital Construction (Die Verteuerung der Krankenhäuser). Spiller. Ztschr. f. Krankenanstalten, Leipsic, 1914, X, No. 14.

Of late years the complaint is frequently heard in Germany, that the money is spent too lavishly in the construction of new hospitals, that the districts and communities vie with each other in erecting luxurious and expensive structures, burdening themselves with debts and making heavy demands on the taxpayers. To counteract this tendency in Prussia the Ministry of the Interior has lately addressed a circular to the provincial governors with the request to see that those districts and communities that have not large funds at their disposition abstain from erecting expensive hospitals. At the same time stress is laid on the fact that the reduction of costs should not be made at the expense of hygienic principles and necessary arrangements of the interior of the hospitals; that the expenses should, on the contrary, be reduced by omitting all unnecessary and costly work, which is not an essential part of the hospital.

Elementary Training of Children to Remove Mental Faults and Lessen Mental Deficiency. Francis Warner, M. D. London Lancet, April 18, 1914.

"When a child is brought to the doctor for examination and advice on account of mental faults, backwardness, or deficiency," the writer suggests, "a diagnosis should be made on which a scientific prognosis can be given, and a line of treatment recommended. At the same time such concomitants as naso-pharyngeal obstruction, deafness, errors of refraction, defects of the heart, and other physical defects, should be eliminated as possible causes of brain inaptitude." He thinks it is also highly desirable, before giving an opinion, "to ascertain as much as possible of the child's surroundings, habits, and previous training. The aim in all these cases," he thinks, "should be to treat each normal character of brain action, stage by stage, on a definite plan according to the age of the child and his increasing brain power, while implanting in the teacher's mind a clear idea of useful employment for social and mental life in the future. The work wanted from the teacher of such a child is often difficult and laborious, but interesting, and needs the guidance of the medical man at each stage, with directions as to what should be observed and how to meet whatever contingencies arise. The author describes what he considers proper methods of mental training, including physical exercises.

Nursing in Asylums, with Special Reference to Female Nursing on the Male Side. Miss Thyne, matron of the West House, Royal Edinburgh Asylum. Brit. Jour. Nursing, April 18, 1914.

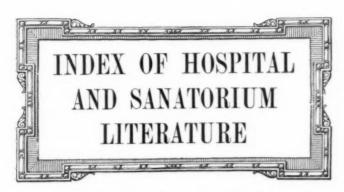
Miss Thyne is inoculated with the modern idea that very much can be done for mentally disturbed patients by the companionship and comradeship, so to speak, of a nurse who has been thoroughly trained in the elements, ethics, and the social necessities of mental nursing. One of the best things in Miss Thyne's paper, which, by the way, was read at the Scottish Nurses' Conference, Glasgow, February, 1914, was her discussion of nursing of male mental patients by women trained nurses. She realizes that there are certain cases whose form of malady would contraindicate association with women, but she thinks trained nurses, as a rule, have tact enough to minimize the dangers in this particular direction, and she thinks that the association of mentally disturbed men with women will do a vast amount of good by way of refinement and the repression of grossness and crudities that might be given free rein under nursing by male attend-

The Surgeon as the Autocrat of the Operating Room. J. W. Kennedy, M. D., Philadelphia-New York Med. Jour., April 25.

"When you are engaged as a surgeon to do an operation, the engaging party doesn't ask you who your anesthetist, assistants, or clinical nurses are; he holds you responsible for all, and so he should." This is the text of the author's paper-viz., that the surgeon must assume responsibility for every feature of his operative work, and he must leave nothing to chance and take nothing for granted. He goes a step too far, and proposes, for instance, that it is the bounden duty of the surgeon to personally count the sponges before and after the operation, and the same with gauze packs, towels, and instruments. He tells us that in his own work he never finds it necessary to use more than three gauze sponges and three gauze towels, and that these are the only pieces that are permitted in the abdomen during the operation. The writer thinks that the surgical technic of the operating room has grown too bulky, complex, and intricate, and that the methods of the late Joseph Price, who was the apostle of simplicity, must come into favor.

The Treatment of Cases of Mental Disorder in General Hospitals. Philip Coombs Knapp. Boston Med. and Surg. Jour., April 23.

Dr. Knapp's paper is the story of an attempt, which he declares to have been entirely successful, to care for nervous and disturbed patients in the Boston City Hospital. There were 785 patients during the four years' experimental work told about in the paper. There were apoplexies, alcoholism, hysteria, epilepsy, cerebral syphilis, dementia precox, general paresis, and a number of others. Some of the alcoholics were delirium tremens. As a result of his experience, the writer does not insist on the "no restraint" fetish. He thinks there are certain cases that do need mechanical restraint, and that for these the mechanical restraint is far preferable to depressing drugs. A summary of the writer's beliefs is stated as follows: "Four years' experience has convinced me that, even without a special psychiatric pavilion or psychiatric wards, insane patients can be received and temporarily cared for in the open wards of the general hospital with comparatively little restraint, and that such a procedure is attended with somewhat more trouble, but no great risks."



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Kansas City has established quiet zones for schools and hospitals.



An Inexpensive Air Moistener.

Without any question we are coming upon a time in the administration of hospitals and sanatoriums, and in the architecture of all these buildings, when air problems shall occupy a most prominent place. Of course, we have known always that fresh air was desirable, and in an indifferent sort of way we have talked about dry and moist atmospheres, but there has been a certain vagueness about air conditions that is just now beginning to be clarified and standardized along scientific lines.

This year the Hospital Section of the American Medical Association is to discuss these air problems for hospitals and homes, sanatoriums and hotels, factories in which large numbers of people work, and in underground living conditions, such as mines. These discussions are to be



Fig. 1. Air moistener-The tank attached to the radiator.

participated in by engineers, sanitarians, hygienists, medical men, and hospital administrators, and undoubtedly the discussions will hinge on two factors in indoor air, temperature and relieve humidity, and these factors again must divide themselves into a discussion of mechanical ventilation and the various mechanical devices on which air conditions depend, and the various devices for bringing about natural or window ventilation.

We all recognize that the relative humidity of air has an immense amount to do with its value, not only for sick people, but for those in good health and living in their homes. Already we know that a certain percentage of relative humidity is necessary, and in a general way we know perfectly well that the ordinary methods of temperature control in homes and hospitals, dependent on the heating systems, hinge as much on the relative humidity as they do on the temperature itself, and that the desired temperature depends in its turn on the humidity.

There has recently been made a simple air moistening device, shown in the illustration, which is easily worked, as it hangs on the radiator, and inexpensive, and therefore available for almost any home or hospital. In the use of this device the higher the temperature goes the greater amount of moisture will be evaporated from the tank into



Fig. 2. Air moistener-Filling the tank with water.

the atmosphere, so that rooms which would be unbearably hot if the temperature were dry will give very desirable temperatures if sufficient amount of moisture is released.

This air moistener, made by the Savo Manufacturing Company, 5856 Park avenue, Chicago, is suggested to the hospital people as a direct contribution toward efficiency in a direction that has caused a good deal of trouble in the past.

A New Water Mixing Valve.

The only mechanical difficulty in the way of furnishing water of exact temperatures for the many purposes of a hospital or a hydrotherapeutic department is the question of a mixing chamber for the hot and cold water. All of us have been perplexed over this problem. How many times do we burn a nervous patient in the hydrotherapeutic department, the value of whose treatment depends almost entirely on its quieting effect? How many times are mentally disturbed patients in state hospitals and private sanatoriums burned by failure of the mixing chamber to deliver water at correct temperatures? The jumping up of a temperature in the water to scalding point when a nervous patient has been under treatment has often served to undo all the good that had been done by perhaps weeks of correct hydrotherapeutic application.

We are now beginning to use water at varying temperatures in our hospitals and sanatoriums for more purposes than formerly. We not only have the showers and needle sprays and the alternating hot and cold douches of the hydrotherapeutic department, but we have the continuous baths for cases of burns, pemphigus, and a number of other diseases; we have the continuous baths for mentally disturbed patients, the value of which will depend almost entirely on the use of correct temperatures in water and the absolute unchangeableness in the delivery of the water to the bath at those temperatures; we have the new baby baths for infant departments, and it is an easy thing to burn babies or to chill them, by sudden delivery of too cold water; and nowadays we are beginning to use metal pads to place over various parts of the body, in which the temperature is attained by coils connected to the plumbing.

All these various purposes make it absolutely necessary that we have water of perfectly controlled temperatures. Up to the present time we have not been able to perfect this temperature control. No mixing valve has been available that would not unexpectedly jump up or down in temperature to a harmful degree; for instance, if the mixing chamber were supplied with hot and cold water from the general supply pipes that went on upstairs for distribution at other outlets, a sudden draw-off of the cold water upstairs would reduce the pressure of the cold water at the mixing chamber and allow more hot water to come in, when the temperature would jump up oftentimes sufficiently to burn a patient, or the reverse would be true, and the water would change instantly to so low a temperature that a patient would be chilled. Therefore hospital administrators have been for a long time looking for some mixing device that would give correct temperature in some automatic fashion that could be prearranged.

It seems that now there has been a device of this character perfected in the Leonard thermostatic mixing valve, made by the Leonard-Rooke Company, of Providence, R. I. This valve is shown in the illustration (Fig. 1), and its operation is as follows: The small handle over the figures 80, 90, 100, 110, etc., is lifted and moved along the scale to the exact temperature desired; then the hand valve above is turned to let the water in; the water comes in from below, at the points marked "hot" and "cold," and comes out to the point of distribution from the pipe at the top.

The mechanism is so arranged that when the hot and cold water are delivered to the mixer inside, the thermo-

static coils, expand and contract, as the case may be, under the impulse of the temperature in the waters until these coils fix themselves for exactly the temperature indicated on the dial. In case the pressure of the cold water should be lowered at any time, then this thermostatic valve readjusts itself instantly to prevent the ingress of more than sufficient hot water to keep the temperature exactly where it belongs. If at any time the cold water should be entirely shut off in the main pipe, then the thermostatic coil inside would expand, under the impulse of the hot water, until it closed the hot water valve and no water at all could come out.

For the past two years this valve has been in use in a num-Water mixing valve-ber of hospitals for purposes of trial under the most difficult

conditions. Dr. Geo. E. Simpson, Rhode Island State Hospital for the Insane, writes that the valve has worked perfectly in that institution. Mr. Chas. A. Devine, superintendent of public baths of Providence, R. I., says that the valve has done exactly what was claimed for it in the

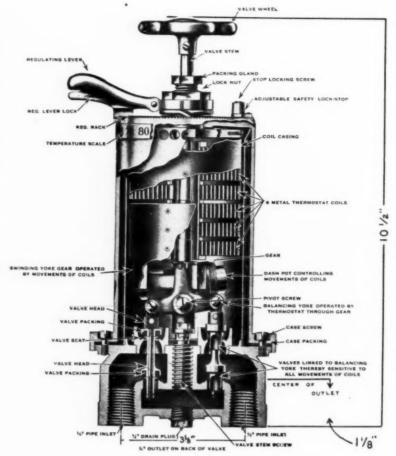


Fig. 2. Water mixing valve-Interior view.

public baths over which he has control. In such a place, for instance, as a hydrotherapeutic department, where there are a number of baths or tubs, these temperature

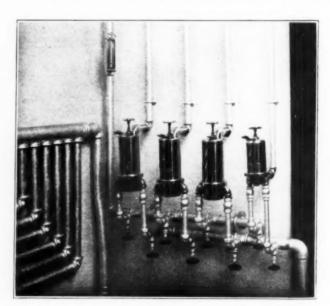
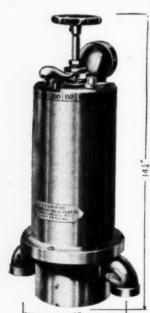


Fig. 3. Arrangement of four valves, one for each bath or tub.

control devices are placed one for each hot and cold water outlet, as shown in Fig. 3.

It is a subject of sincere congratulation that we are now possessed of a mixing valve that can give us water at temperatures that can be relied on.



Elapsing Time Recorder.

One of the difficult problems is to settle to the satisfaction of relatives and friends the contention of patients that they had been compelled to wait "hours" for a nurse to answer their call. All of us can recall the wildest statements of patients, and sometimes they tell their troubles so forcefully and with such exquisite detail that we are impelled to a lingering doubt even in the face of a downright denial by a nurse whom we had always believed to be a truthful and conscientious girl; and sometimes nurses do fail to respond promptly.



Elapsing time recorder.

The Holtzer-Cabot Company has designed a clock mechanism, with automatic recorder, that should clear up this problem. The finger of the recorder perforates a strip of paper which travels ahead a certain recorded distance each minute. When a call is sent in, the fact is recorded; when the call is answered, that fact is likewise recorded on the roll, thus fixing the exact time that had elapsed between the call and the answer. The paper roll used is sufficient for fifteen days' operation, when a new roll is inserted. The security guaranteed by this device should make it well worth having.

A New Body Baking Cabinet.

Every day our doctors in the hospitals are calling for baking devices for some part of the body, to be used in such diseases as neuritis, the rheumatisms, and sprains. The number of affections for which these baking devices are demanded covers a wide range and the number is growing greater as the pathology of diseases is better known.

Up to the present time we have been depending on various devices, each one for some particular part of the body, heated by either gas or electricity, the latter by means of a combination of resistance wires. These baking devices have been made and may be purchased for nearly every part of the body; one for the shoulder, another for the elbow, one for the forearm, one for the foot and ankle, another for the knee, and still another for one hip and another for both hips, and still another for parts of the trunk. If one were to buy the full equipment of these devices for all the various parts of the body, we would



Fig. 1. Device set for application of heat to the chest and upper abdomen.

have to pay in the neighborhood of a thousand dollars, and none of these devices has ever been made heretofore whose temperature could be accurately enough controlled up at the high points to be sure that we were not going to



Fig. 2. Device showing the moisture pad in place, with the curtain pulled aside.

burn somebody. To that extent these devices have all been unsatisfactory as well as very costly.

Mr. F. F. Burdick, of Milton, Wis., for years connected prominently with x-ray and electro-therapeutic commercial work, has devised a single cabinet made to fit any and every part of the human body. The illustrations show this device. There are a number of electric lamps in the oval form of cabinet. Any degree of temperature can be had by turning on the desired number of lights from the notched switch. No description of the device is needed, as the illustrations show exactly what it is for and how it is to be used. The curtain is of resistol cloth, water-

proof, and highly insulating for air temperatures. The story of this cabinet in its finished state is soon told, but its evolution has been a long and a most interesting one to those who have been privileged to watch Mr. Burdick and his work from the inception of his idea.



Fig. 3. Device employed for heat bath to feet and legs.

Fortunately, throughout his experimental work Mr. Burdick has had the benefit of the professional training of his wife. Mrs. Burdick herself is a trained nurse, and it was she who first inspired Mr. Burdick with the idea that a



Fig. 4. Device employed to give heat bath to back

cabinet of this sort was something of which the hospitals were in great need. His leisure hours for the last two years have been expended in its perfection. doubt the cabinet will be marketed at once, and the hospitals will have an opportunity to buy it. For the present, those who are interested may write directly to Mr. Burdick at Milton, Wis.

It should be stated that the cost of this device has

been one of the serious concerns of Mr. Burdick in his work, and he understands that, in order to make it suc-

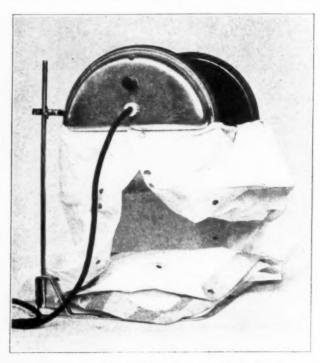


Fig. 5. Device employed as cabinet for part of body, showing moisture pad in place, with curtain drawn aside.

cessful, it must be sold at a price within reach of the hospital people.

Maternity Hospital Wants Affiliation.

The following announcement has been sent out by the Chicago Lying-in Hospital and Dispensary:

To the Training Schools for Nurses of the Central States: The Chicago Lying-in Hospital desires to announce that the first of its new buildings to be devoted to obstetrics and gynecologic work will be ready for occupancy in October of this year, and will have a capacity of 21 beds. The main building will be ready a year and a half afterward, and will have a capacity of 150 beds. The dispensary, out-maternity, cares for 2,000 cases annually.

The Lying-in Hospital prefers not to establish its own training school, but wishes to enter into affiliation with recognized general hospitals.

The following courses of obstetric training will be

offered in the new hospital:

1. For nurses who have completed eighteen months' service in an accredited general hospital, a course of four months, consisting of (a) 2 months in the hospital, of which (b) 4 weeks is puerperal duty with the mothers and babies, (c) 4 weeks is operating room service, day 2 weeks, night 2 weeks; (d) 1 month varied service, incu-

weeks, fight 2 weeks; (d) 1 month varied service, incu-bator room, isolation pavilion, etc.; (e) 1 month dispen-sary service, visiting nursing, social service, etc. 2. For nurses who have served 2 years in a hospital for insane or a sanitarium, a course of 6 months, consist-ing of (a) 1 month laboratory work and preparatory training; (b) 8 weeks puerperal work; (c) 4 weeks operating room; (d) 1 month dispensary service, visiting nursing, social service, etc.; (e) 1 month varied service, iso-

lation pavilion, incubator room, etc.
3. Post-graduate course, as heretofore.

Nurses in all courses attend lectures and demonstra-tions, class work, amphitheater clinics, etc., as far as possible. A certification of the work. A certificate is issued on satisfactory comple-

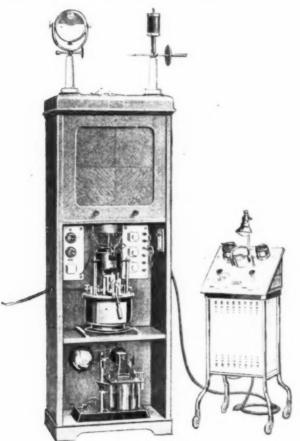
The management will be glad to enter into correspondence with schools needing obstetric training for the nurses.

THE CHICAGO LYING-IN HOSPITAL AND DISPENSARY, 515 South Ashland Boulevard, Chicago.



The Apex Roentgen Apparatus.

The extensive work which is being done in so-called deep Roentgen therapy for the treatment of myoma has called for certain changes in equipment so as to better secure the desired qualities of the x-rays. The method of Professors Gauss and Kroenig, of Freiburg, is now being adopted to a very considerable extent, though it has been found that the ordinary type of induction coil does not produce the best results, largely on account of the form



Apex Roentgen apparatus.

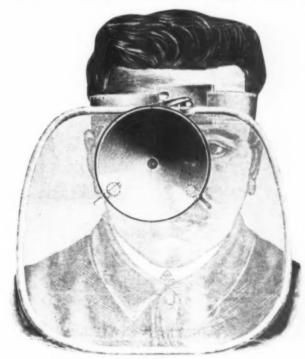
of interrupter used. Electrolytic interrupters are not practical for this class of treatment, as long exposure is necessary. The result is that, if electrolytic interrupters are used, the solution soon becomes hot, causing an uneven flow of current. The older types of mercury interrupters are somewhat better than the electrolytic form, yet most of these mercury interrupters are designed for use during a comparatively short period, and the amount of current they will deliver generally ranges from three to four amperes.

The equipment illustrated has been designed solely for therapeutic and fluoroscopic purposes. The induction coil is placed within the cabinet in a vertical position, and has an air-cooled core, so that it can be used continuously without overheating. The interrupter makes use of illuminating gas as a dialectric instead of kerosene, petroleum oil, or other oils which were formerly used. The manufacturers claim that the use of illuminating gas prevents the rapid oxidation of the mercury, which has always been a fault in mercury interrupters. It is stated that the interrupter can be used from three to four hours daily without any cleaning for at least four months, when the mercury can be easily drawn off and a fresh quantity added. The capacity of the interrupter is great enough so that from forty to fifty amperes of current at two hundred and fifty volts for intermittent service, or from ten to fifteen amperes for continual service, may be passed. When used on the alternating current, a synchronous motor is employed, doing away entirely with the rectifier, which has formerly been a necessary part of the equipment when used on alternating current.

The apparatus requires very little space, and all controlling is done from a stand which is connected to the cabinet by a flexible cable and the operator has control of his apparatus from any distance required.

A Face Protector.

Until quite recently there were few doctors who took the trouble to protect their faces when they were examining patients' throats. This was no doubt due mostly to the fact that there was no suitable apparatus on the



Cutler face protector, attached to head mirror.

market for this purpose. Those devices that were to be had were attached either to a heavy floor stand or suspended from the ceiling, and consequently not movable or not easily portable, and more or less in the way. These objections have been entirely overcome in the protective shield devised by Dr. F. N. Cutler, of Cleveland, Ohio.

As will be seen from the illustration, this shield can be attached to a head mirror. The transparent shield, which is very light in weight, has a hole through which passes

the ball on the back of the mirror and is fastened on the lower border with two sliding clamps. These clamps are sufficiently movable so that the shield may be attached to any of the standard sizes of head mirrors.

A Practical Syringe for Injecting Salvarsan and Neosalvarsan Intravenously.

SUGGESTED BY DRS. E. G. BALLINGER AND O. F. ELDER, ATLANTA, GA.

Many syringes and other devices have been invented and offered to the profession for the purpose of administering salvarsan and neosalvarsan intravenously, yet the syringe illustrated here seems to have several advantages over those now mostly in use that deserve to be more

generally known. As the syringes that have been and are now used for this purpose (the Luer and the Record syringes) have a capacity of 20 cc., only mediumsized doses can be administered, and, owing to the slight dilution of the salvarsan, phlebitis will occasionally follow the injection. This new syringe, however, has a capacity of 50 cc., and is made entirely of metal and glass, without any washers whatsoever. It can be easily taken apart and rendered sterile by boiling.

A special feature of the syringe, as will be seen by the illustration, is that the needle is attached to the edge instead of the center, and this greatly facilitates the introduction of the needle parallel with the vein. An ordinary three-quarter-inch 24-gauge Record needle is used, and while the injection is being made the syringe lies flat upon the arm of the patient, where it can be steadied. The syringe is so well constructed that the slightest traction on the piston rod draws a few drops of blood into the barrel, showing that the needle has entered the lumen of the vein.

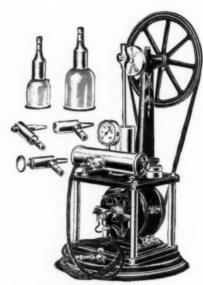
The inventors state that since they have been using a syringe of such large capacity and diluting the salvarsan with about 50 cc. of sterile water, rendering Salvarsan syringe. the solution slightly alkaline, injecting it slowly, allowing blood to flow through the vein to provide further dilution, they have had no bad after-effects from the use of salvarsan.

New Portable Compressed Air Machine.

But few hospitals and sanatoriums are equipped with compressed air, which is often so convenient in the treatment of nose and throat conditions. Again, in many instances where a nose and throat treatment room is provided it often occurs that the compressed air is not sufficient, or considerable time is required to pump it into the storage tank.

It is, therefore, apparent that something in the way of a practical portable air compressor would be a great convenience, and the apparatus shown seems to fulfill every requirement. It is portable and can be easily handled by the nurse, so that the apparatus can be taken to the patient's room and connected to any ordinary socket. A high-speed motor is connected by belt to a single-cylinder compressor, the air from the compressor cylinder being

pumped directly into a chamber, which permits of practically a constant flow of air. A relief valve is provided, so that any excess air above the pressure required for the work in hand will be automatically discharged, and a pressure gauge shows the air pressure which is being



Victor tankless air compressor.

delivered. As the air leaves the chamber it passes through a filter, which absorbs all dust particles, moisture, or grease. Provision is also made for producing vacuum for hyperemia, sinus drainage, or for suction of blood and mucus during operation. The motor is equipped with a fitting so that a flexible shaft for nasal drilling can be attached, or, if desired, a vibrator of the flexible shaft variety. The entire apparatus occupies a space 9x10x25 inches.

Treatment of Tuberculosis at the Iowa State Sanatorium.

An encouraging report of work in the direction of stamping out the white plague was given out recently by Dr. H. V. Scarborough, superintendent of the Iowa State Sanatorium at Oakdale. The report is given in part as follows:

Of the far advanced cases of tuberculosis which we have treated (the third or unfavorable stage) we have been able to improve 74 percent of those who stayed longer than one month. Only 15 percent of this class recovered. Of the second stage, or medium classes, we were able to improve 86 percent and to cause the recovery—that is, the arrest or apparent cure—of between 40 and 45 percent. Of the incipient or first stage cases we were able to improve 96 percent and to cause the recovery of 71 percent. Up to July 1, 1913, there had been discharged from

Up to July 1, 1913, there had been discharged from this institution 1,300 cases. Of this number only 241, or 18½ percent, were first stage cases on their admission. There were 730, or 56 percent, which were medium grade or moderately advanced cases, and the balance were far advanced and very unfavorable cases. In view of the fact that this institution is supposed to receive only the early and favorable cases, it will be seen that not as great results could be expected from these cases as if they had been early cases.

However, at the beginning of this year 458 of these ex-patients were at work on full time. Of the 1,300 patients, 187 were at the hospital less than one month.

While a number of patients have died after leaving the sanatorium, it is on account of the fact that we have taken many advanced cases for which there was little hope when they were received. We have not restricted ourselves to the early cases, but have kept the institution as full as we could consistent with sufficient care of patients.



Mary M. Riddle, R. N., Editor, Superintendent Newton Hospital, Newton Lower Falls, Newton, Mass.

Annual Convention of American Nurses' Association. BY ELIZABETH ROSS,

Delegate from Newton Hospital Nurses' Alumnæ Association.

The convention at St. Louis brought together nurses from all parts of the United States, but, as would be natural, because of the place of meeting the nurses from the Middle West states came in greater numbers than from the extreme East or West.

Thursday, the first day of the convention, was given to registration and to a meeting of the House of Delegates, where the preliminary business of the session was transacted and the reports of committees read.

The report of the treasurer showed the American Nurses' Association to be on a good business basis, and the financial report of the American Journal of Nursing showed an increase in the returns under its new management. The report of the Isabel Hampton Robb Scholarship Fund showed that three scholarships have been given for this year-two for Teachers' College for nurses wishing to prepare for teachers in training schools; the third for training in public health work to be received at the Boston School for Social Workers. At this meeting pledge cards were distributed to the delegates for money for the International Congress to be held in San Francisco next year, when each delegate is expected to come to the meeting instructed as to what her alumnæ is willing to contribute. At 8 o'clock a general session was held, and after the address of welcome by Mr. Robert S. Brookings, president of the corporation of Washington University, of St. Louis, the presidents of the three convening organizations each addressed the nurses, and were followed by an address by Surgeon J. O. Cobb, of the United States Public Health Service. The keynote of this meeting was service-the service which is required by the public of the nurse and her obligation to render to the public the best she is capable of giving. Dr. Cobb said that our watchword is prevention, that the nurse is breaking into the jungle of bad conditions, and that society is following and compelling better conditions and laws. He also said that training schools should be so standardized that they can demand a recognition in the educational world, even to the receiving of a degree.

Friday morning brought together, at the call of Miss Jane A. Delano, all of the Red Cross nurses. It was an inspiring sight to see the large auditorium filled to the doors with Red Cross nurses, all women trained and vouched for as women of ability and of private character above reproach, all ready to answer the call of the nation if the need arises and the dreaded calamity of war should come upon us. Miss Delano called the roll for the states, and almost every state in the Union was repre-

sented. After the roll call Miss Delano said, in substance, that now, when war seemed so near, the whole Red Cross organization was to be tested. If the call came for nurses. each state must assume its own responsibility, and send only those women on whom they could stake their lives and, that more precious possession, their honor. These women must be used to large work, so that they may be equal to the demand put on them; they must be ready to cast aside all artificiality and live only with and for the essentials. They must be willing to be inoculated with typhoid serum to protect themselves and the nation from the danger of succumbing to the dread disease, and, last of all, they must be women that every man can respect and who can never lose their womanhood. Miss Delano also instructed the heads of the state committees to be careful, in the rush of enthusiasm likely to come up at a time like this, not to lower the standards of admission, and to enroll only those who would be chosen in times of

The discussion of the Red Cross uniform was amusing. Miss Gladwin served as a model and wore the chosen dress—gray-blue Japanese crepe, with white crepe collar, white apron and cap, and a sailor hat and military coat. Many of the nurses sighed at the thought of wearing this uniform, and it will take more heroism to obey this order than to take typhoid serum or to go to the front.

After the Red Cross meeting on Friday the public health nurses met to discuss matters pertaining to their special branch of the work. Miss Crandall, the executive secretary, read a report, which was received with enthusiasm and which showed a great amount of work accomplished by the central office. Papers were read on mental hygiene, tuberculosis, and industrial nursing. were section meetings for the private nurses and the hospital nurses. All of these papers will be incorporated in the printed report, and many will be published in the American Journal of Nursing. The evening meeting of Friday was on the standardization of nursing education. Dr. Fred S. Murphy, of Washington University Medical School, of St. Louis, spoke of the demand on the nurse by the hospital and the public. He said the demands of science call for mental training; that the general practitioner, among the nurses as among the physicians, does most of the work, and should be well prepared. He said that the hospital gives the essentials, but takes more than it gives because of necessity. He claimed that the training which the Washington University offers is a training for a profession, but it is also the best training for the homemaker. Dr. Dock spoke on standards-how they may be sought without real gain; that the pupil is often too young to get the full benefit from her training. He said that the nursing profession would have to go through much the same weeding process as the physicians have had in order to find themselves.

Saturday's meetings were given to discussion of legislation, standards for entrance into the schools for nurses, infant welfare, and prevention of blindness. The report of the committee on infant welfare shows much that has been done toward the education of mothers in the care of infants. Miss VanBlarcom gave a general report as to what has been accomplished in the work of preventing blindness by legislation and education. This is a comparatively new work, and all reports show that about half of the blindness is preventable, only needing good laws well enforced. The Saturday night meeting was one of the most enlightening that we were privileged to attend. Mr. Frederick Hoffman, statistician, told what it means to have good records. He said that records are the soul of

the work, and only through them can your work be appreciated by others. He also said that, in searching for facts to help in research work that was being done, he found, with but two exceptions (the Johns Hopkins Hospital and the Henry Street Settlement), that all hospitals and nursing records are useless and no facts can be gathered from them. He said that the information is too bulky, and of no use even to the hospital itself in twelve months' time. He also said that all records should be kept through a calendar year, and that an institution should not begin its year any time that it may happen to start work.

Sunday was given to one general meeting and to some special round-table conferences in the evening.

Monday morning's meeting was interesting, especially in its demand for specially trained nurses for every branch of nursing. The superintendents of the training schools answer this demand by demanding better applicants, and say that they need women capable of making the most of what is offered them. At present only the largest training schools have the facilities for specialized training. Monday afternoon was given to the discussion of hospital social service, with Miss Cannon in the chair. Miss Butler, a pupil nurse of the Massachusetts General Hospital, read a most interesting paper describing her work with the social service department of that hospital and what it meant to her, a pupil nurse. Miss Cannon closed the meeting with a plea that the nurses recognize what the social worker has to give them, and that they make themselves a part of this great work of broadening our whole social outlook.

A postponed meeting on Midwifery was held on Monday, with Miss VanBlarcom in the chair. Miss Holman, of North Carolina, described in thrilling phrases the situation in rural communities. Dr. F. J. Taussig spoke on the need of the nurse midwife. Miss Noyes described the Hospital Training School for Midwives at Bellevue, New York. It was the opinion of those present that, as the midwife is here to stay for many years, it is our duty to see that she is the best that can be made, and that the natural midwife is the trained nurse.

Tuesday's meetings were devoted to a variety of subjects—the problem of the small hospital, affiliation of hospital training schools and other educational institutions, general methods of training; rural nursing, its demands and its compensations; what the Red Cross has accomplished in one year in town and rural work.

One meeting was given over to the problem of raising money for visiting nursing and to the committees on organization and administration. This last meeting was conducted by Mrs. Arthur Aldis, of Chicago, president of the Visiting Nursing Association of Chicago.

An open meeting was held on Tuesday evening to discuss civic control of public health nursing. That this work should come under civic control is the idea of the speaker. He also believes that the cost of the work would be greatly lessened, and should be paid by those who should meet the expense and not by a few wealthy people. At present our cities are not governed in a way that makes it safe to give over to the city government the control of such a vital task as conserving the public health.

Wednesday was given to all unfinished business.

About 1,500 nurses attended the convention. Over \$1,262 was pledged for the San Francisco convention next year.

A fund was started for a memorial to Florence Nightingale, to be given through the American Nurses' Association next year at the International Congress at San Francisco. Impressions of St. Louis Convention on an Outsider.

BY JOHN A. HORNSBY, M. D.

Nearly two thousand nurses met in St. Louis for the annual convention of the various nursing organizations, April 23 to 29. To a mere man observer the Planters Hotel in St. Louis seemed to hive about a million smart, well-dressed women, and they had possession of about everything in the business district of the city for the time they were there.

For a body of citizens supposed to have been in shackles to the opposite sex over a period of thousands of years, the nurses in convention at St. Louis handled themselves with marvelous dexterity, and showed not the slightest stiffness from their shackles. The preciseness of their business methods, the smooth running of their meetings, the tact and diplomacy in the conduct of their relations, showed rather a pastmastership and an intensely high development of what the politicians would call a "free and untrammeled proletariat." Even evidences of "steam rollers" and "gag rule" and "talking against time" and speaking for "buncombe" were sometimes not lacking, and yet every minute of the time every attendant at the convention was every inch a woman. They wore charming costumes as a rule. A few of them were very handsome women, nearly all of them were bright-looking, alert women bearing every evidence of culture and refinement. Their teas and receptions might have been imitated to advantage by the grand dames of society. One of the ladies in attendance, in answer to a question, said that nearly every woman present was in favor of woman suf-

There were no men in the convention, except an isolated few who were on the program at various times, and those with courage enough to intrude for even a short time talked only when they were given the floor as a part of the program. Men stenographers looked very helpless and subdued in those great gatherings of women. writer of these notes attended two meetings, in both of which the rooms were packed. At one meeting there were perhaps a thousand women and at the other half as many, owing to the limitations of the assembly rooms in which the meetings were held. It was a curious spectacle for a man accustomed to large assemblages of men, or of men and women mixed, to see these great meetings entirely made up of women, with women presiding, women secretaries, groups of women on the platform, who were to take part in the meetings, women doorkeepers and ushers and sergeants-at-arms.

Then the speakers. The observer was accustomed to see women, when they spoke at all in public gatherings, observe a certain diffidence, not to say timidity. Here all that was lacking. The speakers arose promptly when called on, or, when the discussion was on and they had something to say, spoke almost always in a firm voice; stranger than all, discussed their topics as though they were born rhetoricians. Green speakers nearly always wander in their discussions, without very much sequence in their remarks. These women, when they rose to their feet, seemed to know exactly what they were going to say, had their remarks in proper sequence in their own minds, and told their stories as though public speaking were an every-day occurrence with them. That seemed to me the most wonderful thing about the St. Louis meeting-that women, most of whom could not possibly have been accustomed to speaking on their feet and in public, should be such entire masters of themselves is little short of marvelous.

The voting, too, was carried on rather differently than one would expect, who realized that women were just beginning to vote. In the election of officers a woman was stationed out in the great corridor of the parlor floor of the hotel, behind a little desk. She had before her the list of those who were entitled to vote and the ballot box, with a slot through which the ballots were deposited. All day the women came up as they found time to do so, deliberately marked their ballots, more deliberately still deposited them in the box, and then yet more deliberately walked away, as though the whole matter were a routine through which they went every day of their lives.

On the whole, the nurses' convention, to one who had never attended such a gathering before, was a revelation, and was an omen that the new citizens of this republic—for it goes without saying that women are rapidly and inevitably coming into full citizenship—will be no hindrances to progress and efficiency, and that they will take their places beside the men on just exactly an equal footing. There are those who think that women in politics will better political conditions, and there are those who advocate woman suffrage on this score alone. To me the matter doesn't appear that way. It would seem rather that women are coming into full citizenship as their just right and not because of any sentimental dream that things are to be made better or worse.

It may be invidious to name names of a few women when so many were conspicuous and prominent in the deliberations of the St. Louis meeting, but I cannot help naming a few whom it was my good fortune to meet. Miss Genevieve Cooke was there. She is president of the American Nurses' Association and hails from the sunny golden West. Whenever California goes to a convention she generally brings her atmosphere with her. Miss Cooke was no exception.

Miss Clara Noyes, as president of the League of Nursing Education, made everything move like a clock and the business went along with expedition. By the way, Miss Noyes pronounced one of the finest pieces of rhetoric in a little extempore discussion at one of the meetings. The topic was the control of training schools. Miss Noyes was really introducing a speaker, in her happy toastmaster manner, and she was telling how valuable an aid to her, in her own work, her special board of advisers was. She was telling how much they helped her, how beautifully they supported all the things that she wanted, and how they went at and secured for her things that she could not otherwise have obtained, and, with a mental wink in every word, she uttered an apostrophe to her board.

Miss Ella Phillips Crandall, executive secretary of the National Organization for Public Health Nursing, was there—very busy, but very serene. She has a great many friends in the nursing profession, and held almost a constant levee on the parlor floor of the Planters Hotel.

Miss Sara Parsons, superintendent of the training school at the Massachusetts General Hospital, was there, the busiest mortal in St. Louis during the week of the meeting.

There were Miss Edna Foley, of the Chicago Visiting Nurse Association; Miss Annie W. Goodrich, of Teachers' College; Miss Mary Wheeler, the new head of the Illinois Training School, whose work for the past year in the Cook County Hospital has brought to that disreputable old institution many improvements; Mrs. Frances Campbell, superintendent of the training school at the St. Paul City and County Hospital; Miss Elizabeth Burgess, who has done so much for nurse training in the Michael

Reese Hospital, Chicago; Miss Sophronisba P. Breckinridge, of the Chicago School of Civics.

Indeed, there were so many fine women there, who were doing so many splendid things in the world of nursing, that one must beg pardon for mentioning any individuals.

To the uninformed observer the St. Louis meeting must have been productive of some splendid work; there is, of course, present at every convention an atmosphere that carries the participants along and that sometimes leads to excesses in thought and in resolution. Sometimes radical ground is occupied that the occupants would sometimes prefer not to defend after they have arrived back home and thought the thing over awhile. Let us hope this was not the case at the St. Louis meeting.

Nursing in Infancy and Childhood.

BY HENRY F. KEEVER, M. D.,

Assistant in Pediatrics Harvard Medical School; Junior Assistant Physician Children's Hospital, Boston; Assistant Physician Newton Hospital, Newton, Mass.

CONVULSIONS.

One emergency which the nurse frequently meets is convulsions. They are attacks of motor disturbance, represented by continuous rigidity or contractions of one or more groups of muscles, lasting for a variable time and usually accompanied by unconsciousness. A convulsion is a symptom and not a disease. The seat of the lesion may be in the central nervous system, the brain, or spinal cord, or it may be in the peripheral nerves—reflex convulsions. Convulsions are more apt to occur in infancy than in childhood, as there is less power of inhibition in the infant; hence convulsions in infancy are of less import than in the adult. The causes of reflex convulsions in infancy are innumerable, and as a rule they do not result seriously. They have been compared to the chill in the adult, whereas the chill in infancy is almost unknown.

Convulsions of central origin are due usually to meningitis, pneumonia, or the exanthemata. These convulsions emanate from the brain and are generally unilateral.

Reflex convulsions occur in cases where the nervous system is easily irritated, so that a nervous explosion takes place. Rhachitis, improper food, teething, and foreign bodies in the nose and ears are common causes of reflex convulsions.

TREATMENT.—Place the child in a hot bath, temperature 100° F., for five or ten minutes, so as to relieve the congestion of the brain. The precaution must always be taken that the water is not too hot. In case of doubt as to the proper temperature of the water, use a bath thermometer. If one is not available, immerse your bare arm in the tub.

An enema of hot soap suds is always good treatment, followed by a dose of castor oil as soon as the patient is out of the convulsion. In severe cases it may be necessary to use whiffs of ether.

Further treatment will depend on the cause of the convulsion. In no emergency that the nurse is called on to meet will she need more tact, coolness, and sound judgment than in cases of convulsions. The members of the family usually become nervous and excited, and it needs one steady head and hand to direct affairs.

BRONCHITIS.

Children and infants are peculiarly susceptible to bronchitis and pneumonia because of the anatomical conditions of the lungs during the early years of life. Bronchitis is an inflammation of both the large and small bronchi, and is usually secondary to some inflammatory condition of the upper air passages. It is of frequent occurrence in pertussis and measles, and in certain disturbances of nutrition. At first the cough is dry and hard, the respirations may be slightly raised, the pulse quickened, the temperature range up to 102° F. When it goes over 102° F., then a broncho-pneumonia should be carefully watched for. After two or three days the cough softens and the temperature gradually drops.

TREATMENT.—The treatment of this condition is essentially hygienic. A warm, well-ventilated room should be selected, preferably one with a sunny exposure. The temperature of the room should range from 65° to 70° F. The value of a constant supply of fresh air is too little appreciated. In every case there should be direct communication between the sick room and the open air. Plenty of fresh air is an absolute necessity. Direct drafts over the patient should be avoided by means of screens, or sheets placed about the crib or bed. The room temperature should never register above 70° F. Everywhere we find a tendency to coddle, to overwrap, to overclothe patients. Ordinarily a medium weight flannel shirt, possibly a band if the child is accustomed to it, and the usual night dress are sufficient.

In every illness with fever the digestive capacity is considerably reduced. If the usual milk diet is continued, we are likely to have gastro-intestinal complications. In the breast-fed one to two tablespoons of boiled water (cooled) should be given before each nursing and the time allowed for nursing reduced one-third. In the bottle-fed the strength of the milk should be reduced one-third to one-half by means of water or barley water.

Children from two to four years are put on a diet of diluted milk, cereals, and broths. Feed at regular intervals. No custom is so pernicious as that of placing a glass of milk or a saucer of gruel beside the bed and have the patient take a swallow or two every few minutes. This continuous performance method tires out the stomach and brings on gastro-intestinal indigestion.

In the case of many infants who refuse food almost entirely, or take less than twenty ounces in twenty-four hours for several consecutive days, it may become necessary to give them one or several tube feedings. It is always preferable to give tube feedings by the mouth rather than the nose, so as to avoid infection of the middle ear.

Water should always be forced. When running a temperature, children lose much moisture by evaporation and this deficiency must be made up.

Steam inhalations with benzoin are often beneficial for the dyspnea. One teaspoonful of compound tincture benzoin is used to a quart of steaming water. If a croup kettle is used, the nozzle can be placed in the crib, which has previously been draped with sheets so as to make a fairly tight inclosed space. The steaming can be kept up at intervals of twenty minutes every hour. If no croup kettle is used, but only a pitcher is available, it is often possible to steam the child by placing a large umbrella over the crib, putting the steaming pitcher beneath it and allowing the child to inhale the steam. If the child is in a small, well-ventilated room, the steaming process can be continued indefinitely and the air held at the point of saturation.

The Place of Invalid Occupation in the General Hospital. BY SUSAN E. TRACY, R. N.,

Experiment Station of Invalid Occupation, Jamaica Plains, Mass.

To the hospitals for the insane belongs the credit of first introducing systematic occupation for the patients. This was done in the beginning to offset, in part, the heavy financial burden imposed on the state. It was soon noted, however, that those patients who were employed made an appreciable physical gain, and from that time to the present work has held a prominent place in such hospitals as a purely therapeutic agent. The various sanatoriums were quick to see the application of this great principle, and the nervous invalid has been taken from the rest cure shelf and placed in the more normal environment of the occupation room. But, with all this awakening in the treatment of mental and nervous disturbances, there has existed a singularly persistent apathy in the minds of both profession and laity. The application of this most rational remedy to ordinary, every-day sick people, as found in the general hospital, is almost unknown.

The word "remedy" signified in past times a drug, usually swallowed with more or less disagreeable sensation. Today remedial treatment means much more. Electricity, massage, light-rays, exercise, hydrotherapy, mental suggestion, and many other forms of treatment must be recognized as possessing true therapeutic value. Remedies are classified according to their physiological effects as stimulants, sedatives, anesthetics, carminatives, etc. Certain occupations possess like properties. Just as the physician runs through the list of stimulants and readsstrychnin, caffein, adrenalin, or among the depressantsaconite, acetanilid, and so on-so he may read down the list of stimulating occupations-water-color painting, doll dressing, designing of costumes, paper folding, or in the sedatives-knitting, weaving, basketry, bookbinding. Making his selection from these, he turns to the nurse to order its administration. Nurses have looked to the physician for their knowledge of medicines. For years the classes have sat, starched and silent, before the doctor who should expound to them the laws of the pill and the potion. In the inauguration of the treatment by occupation there is a reversal of the ancient custom, since it devolves on the nurse to demonstrate to the doctors the remedial properties of work.

Stimulation by some carefully chosen occupation leaves the patient in better condition than does stimulation by drugs. Granting that it could be obtained, no one would question that the quiet gained through a sedative occupation would be a better quiet than that induced by bromides. Codia may dull one's pain, but it leaves a bad taste in the mouth, while pain forgotten in the painting of a spring landscape is more wisely treated. It is well to acquire the landscape habit.

The modern hospital ward consists of a double row of straight, white beds, a double row of straight, white bedside tables, and a double row of straight, white patients. When the nurse in charge looks down the lines and notes no deviations, she breathes a sign of relief and is ready for the doctors. In all this miniature street of human life there is one all-pervading suggestion—that of illness. Without departure from any chosen creed or adherence to so-called newer cults, all seriously minded students must recognize the fact that thought is a force. When one sees a yellow crocus pushing up through a lingering bed of snow, it signifies just one thing-the greatest of all things-life itself. So, when one bed is littered with yellow papers and another hung with skeins of pink wool, the patient in the other bed hitches up on his elbow to see what is going on next door, while the bedclothes become somewhat drifted instead of lying white and still, and the same great life pulse stirs in the ward.

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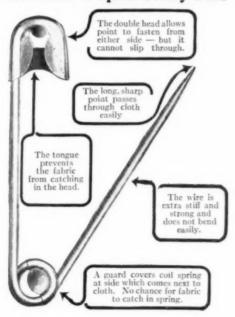
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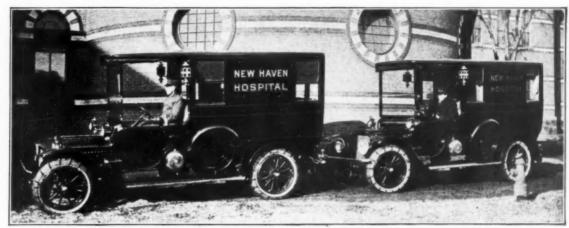
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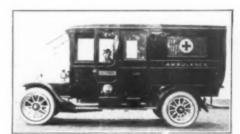
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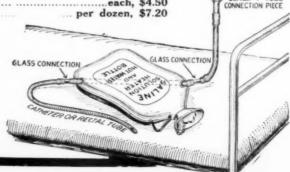
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The county hospital at San Diego, Cal., opened a handsome new home for its nurses last month.

The State Hospital for Inebriates at Knoxville, Ia., operates a plant for manufacturing brick and building tile.

"A dime a day for thirty days" is the slogan of a campaign for funds being conducted by the Atchison (Kas.) Hospital Association.

Dr. R. C. Reimche, of Chicago, has been elected superintendent of the Chamberlain Hospital and Sanitarium at Chamberlain, S. D.

Miss Lydia Valade, of Tipton, Ia., has been appointed superintendent of the new Scott County Tuberculosis Hospital at Davenport.

An emergency hospital for railroad employees will probably be erected at LaGrande, Ore., this summer by the O.-W. R. & N. Company.

The new Southwest Hospital at Springfield, Mo., is now in operation. Miss Dora Stacy, of Kansas City, is the superintendent.

The United States Naval Hospital at Philadelphia will be in command of Rear Admiral Charles E. Stokes, former surgeon-general of the navy.

The W. C. T. U. Mountain Mission School at Hindman, Knott county, Ky., contemplates establishing a hospital to be conducted in connection with the school.

Dr. Walter List has resigned his position as physician of Longview Hospital, Cincinnati, to become assistant superintendent at the Cincinnati General Hospital.

Mr. John Reid has resigned as superintendent of the St. Margaret Memorial Hospital of Pittsburgh, Pa., after having been connected with the hospital for sixteen years.

It is reported that a hospital will soon be established at Klamath Falls, Ore., by the Sisters of St. Francis, who own 320 acres of fine land near the city.

A patients' library is being founded for the Youngstown (Ohio) City Hospital by Mrs. Fred M. Orr, who is gathering books and cataloging them for this purpose.

The Harrison Hospital, Chanute, Kas., has recently passed into the hands of L. D. Johnson and E. A. Davis, local physicians.

An army hospital is to be established in Galveston, Tex., in the event of further hostilities between the United States and Mexico. A large hotel has been tentatively arranged for.

The Grace Lutheran Sanatorium of San Antonio, Tex., formerly known as the San Antonio Tent Colony, cared for patients from twenty-four states during a period of six months ending April 30.

Miss Roma M. Lambert, of Cincinnati, has been appointed to the position of matron in the Findlay (Ohio)

Bulgarian Bacillus Mulford

(Pure living cultures of the Bulgarian Lactic Acid Bacillus)

For the treatment of intestinal fermentation, toxemia, controlling intestinal putrefaction and preventing absorption of toxic material from the intestines, and, according to Metchnikoff, preventing the tissue changes incident to senility, and for local infections. In prescribing Bulgarian Bacillus

Three points are essential:

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- 2. The culture must be free from other living bacteria.
- 3. The culture must be alive and active.

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This product is prepared in the most complete and modern biological laboratories, and is the True Living Bulgarian Bacillus. Its production is safeguarded by the same precautions taken in the preparation of the Mulford Serums and Bacterins, and the Purity of Each Lot Is Made Certain by Careful Bacteriological Tests Before Releasing from the Laboratory.

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Home and Hospital, succeeding Miss Charlotte M. Kerans, who goes to Toledo.

A third hospital in Kentucky for the treatment of trachoma has been established by the Government at Beattyville. The other two are at Hindman, Knott county, and Hyden, Leslie county.

Miss Laura A. Slee, for the last two years superintendent of the National Homeopathic Hospital, Washington, D. C., has accepted the position of superintendent of the City Hospital at Ithaca, N. Y.

Miss Alla MacCumber, superintendent of the Little Falls (N. Y.) City Hospital, has resigned. She will be succeeded by Miss Stark, a member of the class of 1909 of the Dansville Nurses' Training School.

The Sisters of Charity have purchased at a cost of \$40,000 a fine large residence in McAlester, Okla., which will be converted into a new home for Mercy Hospital, established in that city twelve years ago.

The Home for Cripples, West Philadelphia, is the beneficiary of the \$40,000 estate of the late Nelson Wanamaker. It is proposed to erect a memorial building with this money.

The McMinnville (Ore.) Hospital, which was closed for some time, has been leased by Mrs. Bertha Warren and will be reopened soon. Mrs. Warren has been conducting a successful private hospital in the town.

The hospitals of Cleveland, Ohio, have formed a cooperative organization with a view to more economical administration. They will purchase supplies on the cooperative plan and establish a uniform system of accounting.

The Hospital Saturday and Sunday Association of New York City recently distributed \$110,000 among forty-seven nonmunicipal hospitals in the city. This is said to be the largest annual distribution ever made by the association.

The Rhinehart Hospital at Ashland, Wis., has been purchased by St. Joseph Hospital of that place, and will be operated in conjunction with the latter institution. Dr. Rhinehart will remain as a member of the hospital staff.

The trained nurse will have something to anticipate in the coming International Congress of Nurses at the Panama Pacific International Exposition at San Francisco in 1915. There will be 6,000 delegates in attendance.

The new People's Hospital at Peru, Ill., was opened in May. The building contains two wards and 50 beds. It cost \$90,000, the greater part of this sum being raised by popular subscription, social functions, etc.

Previous to the meeting of the American Medical Association in June there will be a week of complimentary clinics given in the chief hospitals of Philadelphia, which, as usual, will be free to all who care to attend them.

A unique method of securing funds was introduced in a campaign for a county hospital at Marysville, Ohio, recently. Every farmer favorably disposed toward the movement was asked to contribute his egg crop for three days.

During the year 1913 the Iowa State Hospital for Inebriates, at Knoxville, treated an average of 167 patients at a per-capita cost of 76 cents a day. The men are required to work, and are allowed wages, which are sent to their families.

Colonel G. D. Deshon, of the Medical Corps of the United States Army, who has been stationed on the Pacific coast for some time, was recently assigned to Panama, where he will have charge of the Government hospitals on the isthmus.

Dr. Leonard G. Harrington, of Independence, Mo., has been appointed superintendent of the Independence Sanitarium. Dr. Harrington has just recently returned from Australia, where he has been doing special study to prepare himself for work of this kind.

Dr. F. L. Peddicord has been appointed superintendent of the Central State Hospital at Lakeland, Ky., to succeed Dr. W. E. Gardner, who recently resigned after a long term of service. Dr. Peddicord has been first assistant at the institution for the last two years.

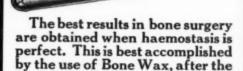
A \$125,000 hospital, known as the Huber Memorial, has been completed at Pana, Ill. It was founded by the



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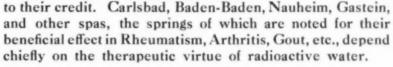
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¶ Physiological Action.—The rationale of the physiological action of Radium Emanation is still a matter of investigation. The earlier idea of the bactericidal action has been discredited. The action is now generally believed to be the stimulating effect of the rays upon the tissues and enzymes of the body.

■ Therapeutic Application.— Results obtained by many investigators demonstrate that Radium Emanation is successful in Subacute and Chronic Arthritis, Gout, Neuritis, Neuralgia, and in Painful Muscular and Nerve conditions not due to mechanical pressure. The Radium Emanation bath is particularly indicated in cases of Insomnia, in cases of Arthritis Presenting Nervous Symptoms, and certain forms of Neuritis.

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late Dr. Huber, of Pana, and will be conducted by the Sisters of Misericordia.

The report of the St. Louis City Hospital for the year ending April 13 shows that 17,044 patients received treatment at the institution, an increase of 15 percent over the preceding year. The mortality rate was 8.5 percent, as against 9.4 last year.

"Tag days," on which funds are solicited for hospitals, are common, but the Virginia Home for Incurables, of Richmond, has an annual "bell day." Everyone in the street who contributes is given a tiny bell, which insures immunity from further solicitation.

A site has been acquired for the Red Cross Building which is to be erected in Washington, D. C., by the Government as a memorial to the women of the North and South. The land lies between Seventeenth and Eighteenth streets and D and E streets, northwest.

An institution is to be established at Gastonia, N. C., for the care and treatment of diseased and crippled indigent children. It will be known as the Orthopedic Hospital of Gastonia. Some of the most prominent men of the state are among the incorporators.

Appropriations amounting to \$703,000 have recently been made by the Detroit Board of Estimates for increasing the facilities of the city's hospital service. Among the improvements provided for is a tuberculosis sanatorium and also the first unit of a general hospital.

A sanitarium has been opened in Eatonton, Ga., by Mrs. Ivey Wilson, who will have the cooperation of the local physicians. Mrs. Wilson is a graduate of the Savannah Hospital, and was formerly in charge of the hospital of the G. N. and I. College at Milledgeville, Ga.

Hospital training and practical experience in the practice of medicine, surgery, and obstetrics are essential features in an examination for the Medical Corps of the Army. At least a year's experience as an intern after graduation is required of the applicant.

Many physicians and surgeons and quite a gathering of Philadelphia's society people attended the unveiling of a bronze medallion, April 15, in memory of Dr. John H. Musser, founder of the social service department of the University Hospital.

A sanatorium exclusively for tubercular women and girls has been opened in Denver. It is designed to care for working girls and women who have contracted tuberculosis and have not been able to save enough money to pay for treatment.

A hospital for criminal insane, to be erected and maintained by the state in connection with the penitentiary at Jefferson City, is among the recommendations of the special committee of the Missouri State Senate recently appointed to investigate the management of convicts.

The Daughters of Veterans have presented a bronze memorial statue to the Army Nurses of Massachusetts who served in the War between the States. It was unveiled on Lincoln's birthday, and stands in the Hall of Flags of the State House at Boston. The design is by Bela Pratt.

Several thousand trees were recently set out on the grounds surrounding St. Elizabeth's Hospital, Granite City, Ill. The officials of the hospital say that in five or six years the grounds of St. Elizabeth's will be the most beautiful among those of similar institutions of the entire state.

William Hood Dunwoody, the millionaire miller whose recent death is recorded, bequeathed \$1,000,000 to the erection and support of the Dunwoody Home for Convalescents at Newton, Bucks county, Pa. The hospital is intended to perpetuate his memory, and is a tribute to his place of birth.

Many improvements are being planned for the Boston City Hospital system. Among them will be an additional story and roof garden for each of the present two-story buildings, glass walls in the corridors of the contagious disease hospital, and two new buildings for contagious cases, one of the latter being for children exclusively.

Either the hospitals of Cheyenne, Wyoming, are exceptionally efficient, or the city has been particularly fa-

ETHER PRO NARCOSI

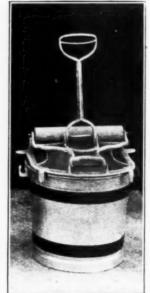
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And think! It weighs only Six Pounds! It fits any kind of bucket; wrings all kinds of mops, large or small, flat or round; makes the mop Clean as well as Dry.

You do not have to take the Wringer off the bucket to empty the water or to refill it. A child can operate it. No friction; no springs to rust; no buckets to warp!

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tee it to last longer than any so-called mop wringer on the market. Give it a trial and be convinced. It can be delivered to all parts of the United States by parcel post.

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Our Eclipse Door (the "fool-proof" door, as many experts have termed it) is one of the many exclusive features of these sterilizers. Our doors have no mechanical fastenings; they may be opened or closed instantly, without effort, and they cannot be opened while there is the least pressure in the chamber; hence there is never any danger of scalding or other injuries to the operator. There are four regular sizes of this dressing sterilizer and we are prepared to make sterilizers of any size or shape, always with the Eclipse Doors.

Catalogs and quotations on

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vored with health. A recent report of the city health officer showed that the hospitals were practically depopulated.

Mr. Odin R. Edwards, for the last four years superintendent of the Hahnemann Hospital at Philadelphia, has resigned the position, giving as his reason that ill health and advancing age were handicapping him in the performance of his duties. Dr. Clarence V. Clemm, chief resident physician, has been appointed to succeed Mr. Edwards.

The St. Louis Board of Public Improvements has advertised for bids on the erection of the first building of an isolation hospital group, which will complete a most modern and complete institution for the treatment of contagious diseases. There will be twelve buildings in the group when finally completed.

The County Hospital at Wabash, Ind., has been leased to Miss Rose Thomas, who has been superintendent of the institution for the last year, and will hereafter be privately operated. Miss Thomas is said to be a very capable woman, being a graduate registered nurse and having ten years' hospital experience to her credit.

The Philadelphia County Medical Society is soliciting subscriptions among its members for the erection of a building for its exclusive use. The committee appointed to handle this matter reports that the funds are rapidly increasing and that they will soon be in a position to purchase a site.

In an editorial in the April number, Colorado Medicine criticises the small number of post-mortem examinations made in American public hospitals, and suggests that it is inconceivable that a physician should maintain an intelligent interest in a case of illness to lose it when the patient is dead.

The psychopathic wards at the Philadelphia General Hospital, which are rapidly nearing completion under the direction of Dr. W. W. Hawke, have been approved by the State Board of Charities. This approval will permit the city of Philadelphia to claim \$2 for every patient admitted to those wards.

Youngstown, Ohio, is to have another hospital. The building formerly occupied by the Mahoning Valley Hospital, which went out of existence two or three years ago, is to be remodeled and will be conducted as a hospital for men exclusively. It is planned to equip the institution so that all kinds of operations may be performed, and an-up-to-date laboratory will be installed.

A new colony, consisting of one family building and four cottages, will be added to the State Epileptic Village at New Castle, Ind., in the near future. The committee which recently made a tour of the eastern states in the interest of the hospital for epileptics to be established in Illinois declared the New Castle institution to be one of the best in the country.

On the night of May 15 the Philadelphia General Hospital Training School for Nurses had their graduation exercises. The principal address was made by Surgeon Charles F. Stokes, formerly surgeon general of the United States navy. The class, consisting of forty-one members, was the largest in some years. Dr. Walsh, acting chief resident physician, introduced the speakers.

The silver anniversary of the coming to Kalamazoo, Mich., of the Sisters of St. Joseph, which occurs this year, will be celebrated by the erection of a hospital group involving an expenditure of \$200,000. The new structures will take the place of the Borgess Hospital, which has been conducted by the sisters since 1889. The plans for the new hospital include a special building for the free treatment of the needy poor.

Dr. and Mrs. Robert W. Long, donors of the Indiana University School of Medicine of the Robert W. Long Memorial Hospital, now being erected, have added \$10,000 to the money and property formerly given by them to the state institution for the completion of the building. This brings the total of their contributions up to \$260,000. The additional gift will be used to make the hospital more complete than was originally planned.

The city of Richmond, Va., has remodeled the old Virginia Hospital building and turned it into a modern mu-

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nicipal institution, equipped to accommodate over 200 patients. The faculty of the Medical College of Virginia will supervise the medical department. A nurses' training school will be maintained.

State hospital No. 3 for the insane, at Nevada, Mo., has a dairy herd of which it has reason to be proud. During the two months of January and February the products from this herd amounted to over \$2,500, not taking into consideration the increase in the value of calves fed on milk.

Mrs. B. A. Irvin is erecting a hospital at Mount Airy, N. C., near a mineral spring long famous in that part of the country. Mrs. Irvin's son, Dr. Samuel S. Irvin, of New York, a graduate of the University of Virginia, will be in charge. The institution will be open to local physicians and the general public.

At a banquet of the homeopathic physicians of Ohio, held in May, President W. O. Thompson, of the Ohio State University, outlined a plan for a state hospital on the university campus, open to all schools of medicine, and equipped to treat special forms of diseases and to work out problems for the prevention of disease.

The grounds of the new city hospital and sanitarium at Kalamazoo, Mich., are soon to have an orchard of sixty trees of various kinds of fruit. The apple trees will be grouped together, while the others will be placed about the grounds in such a way as to be ornaments to the place as well as useful fruit bearers.

Miss Lydia Keller, superintendent of Cobb Hospital at St. Paul, Minn., since it was founded sixteen years ago, has resigned and will take an extended vacation. Miss Keller is a member of the Minnesota State Board of Nurses' Examiners. She will be succeeded at the Cobb hospital by Dr. Florence Richardson, of Minneapolis.

The War Department has announced instruction camps for medical officers and noncommissioned officers of the sanitary corps and organized militia at various military posts this summer. These camps will be provided with complete regimental hospitals and infirmaries, and offer every facility for a thorough course of instruction in sanitary regulations in the field.

A tract of six acres, upon which there is a residence, has been purchased by the Providence General Hospital for \$40,000. The tract is located on Wissahickon avenue, 162 feet, with a depth of 587 feet on Hermit street, 431 feet on the northeast line and 614 feet on Fairmount Park. This will provide one of the most ideal sites in the city of Philadelphia for the hospital planned.

Negro nurses are being given employment in the Kansas State Hospital at Osawatomie. All are Kansas women and are registered both at Osawatomie and Topeka, and in former years they have been cared for by white nurses. In the event the experiment at Osawatomie proves successful, it is probable that negroes will be put in charge of the negro wards at Topeka also.

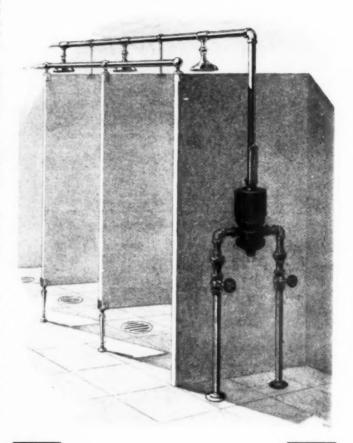
The management of the Missouri Baptist Sanitarium at St. Louis has announced that work will be begun this month on a \$150,000 extension to their present building. Two-thirds of the sum to be expended was contributed by the late A. D. Brown, a wealthy shoe manufacturer, who had previously donated large sums to the sanitarium for other purposes.

The British Medical Journal has given an account of a public uprising in Rome coincident with a proposed alteration in hospital arrangements that met with a storm of protests. The Eternal City seemed threatened with a new war, when a satisfactory compromise restored peace. The demands made by the citizens on Roman officials may have been unwise, but their interest in hospital administration will not be without wholesome effect.

A psychopathic ward, to be supported by the state, has been established at the Philadelphia General Hospital. Persons suspected of mental disease or defects will be held at this ward for observation before being sent to the State Hospital at Norristown. It is hoped that in many cases treatment may be administered which will enable patients to return to their homes under the supervision of physicians and social workers.

It is announced from Asheville, N. C., that a \$250,000 sanitarium for the treatment of tuberculosis will soon be

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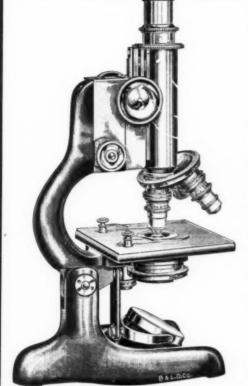
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Please send me Walking Tour Book, Aeroplane Folder and other descriptive literature on Glacier National Park free.

City.....

183

established near that city. The enterprise is a private one, promoted by Dr. Charles L. Minor and Dr. William L. Dunn. The institution will have a capacity of 125 to 150 patients, and it is stated that it will be conducted with a view to providing for the patients whatever accommodations they desire, regardless of how luxurious they demand that their quarters shall be.

Miss M. M. Taylor, who has been conducting the Physicians and Surgeons' Hospital at San Antonio, Tex., for the last three years under lease, has purchased the institution, the consideration being approximately \$75,000. It was announced a short time ago that this hospital had been sold to the county and would be conducted as a county hospital, but the contract was later canceled, owing to protests made by the residents of the fashionable district in which the Physicians and Surgeons' Hospital is located.

A \$50,000 building to serve as a chapel and amusement hall was recently completed for the Central Indiana Hospital for the Insane at Indianapolis. The building has been named Cornelius Mayer Hall in honor of Mr. Cornelius Mayer, private secretary to Dr. George F. Edenharter, superintendent of the institution. Mr. Mayer has been active for several years in directing the social work and entertainment among the inmates. The new structure is of brick, with stone trimmings, and follows the Gothic style of architecture.

St. Luke's Hospital in Cleveland is planning the erection in the near future of a \$400,000 building, which, it is asserted by those supporting the undertaking, will make the institution one of the most modern and best equipped in the country. In the new hospital there will be no "charity beds." Charity patients will be treated in the semi-private wards. Increased facilities for handling maternity cases will be among the improvements, and there will be a ward in which all diseases peculiar to children will receive special attention.

On May 15 it was announced by the board of trustees of the Abingdon Memorial hospital, Philadelphia, that a gift of \$2,500 for the endowment fund had been received from George W. Elkins, of Elkins Park. The gift is in memory of his wife, Stella Mackintyre Elkins. Mr. Elkins has been the donor of the entire fund in the erection of the hospital buildings, a sum in excess of \$100,000.00, which is also to be given in memory of Mrs. Elkins.

Free clinics for school children are being inaugurated in Nashville, Tenn., under the supervision of the Nashville Parent-Teachers' Association, with the local school medical inspectors in charge. The clinics will be open to children of all parts of the state. It is planned to make the scope of these clinics larger than that of any other system of clinics in the South. The work at first will be limited to eye, nose, and throat diseases, but all diseases to which children are subject will finally be included.

In memory of his father, William Deering, and his sister, Mrs. Abbie Deering Howe, James Deering, of the International Harvester Company, has given \$1,000,000 to Wesley Hospital, Chicago. The donation is to be invested and the income used entirely for charity. However, pauperism or mendicancy is not to be encouraged. According to the terms of the gift, the administrator of it is to be in sympathetic connection with organized charities. Buildings and the necessary equipment may be provided out of the income.

Male nurses in the Illinois state hospitals for the insane are being replaced by women, and, while the change is going on gradually, it is said that eventually few men will be retained. According to the report the State Board of Administration is convinced that women nurses have better success than men in controlling insane patients, even the most violent ones, owing to the fact that less resistance is offered women attendants. Women have already been given a try-out in the Illinois institutions as an experiment, and it is claimed that fewer patients were injured while under the care of women than under the same circumstances with men in charge. Another reason given for employing women in preference to men is that better grades of women nurses than of men can be obtained for the salaries paid.

The Ideal Heating System for Your Hospital

is a "RELIABLE" Vacuum or Vacu-Vapor System, because it is

Noiseless. No hissing radiators or hammering in the pipes.

No vapor escape, to cause a humid atmosphere in the wards. No leaky radiator valves.

No odors or gases.

Even heat distribution, in zero or mild weather.

Instant results. Not necessary to wait until the cold air is forced out of the pipes and radiators before heating begins.

Great fuel economy, because less steam pressure is required to operate system and maintain desired temperature.

Flexibility. The three styles of "Reliable" Systems are equally efficient for large or small plants and any style of building. Can be installed without changing piping of old systems.

These and many other advantages are thoroughly described in our "Reliable" Heating Catalog. Write for a copy of it today. Ask for Booklet "L".

THE BISHOP-BABCOCK-BECKER CO.

CLEVELAND, OHIO

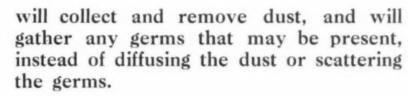
A HOSPITAL PROBLEM SOLVED

HOW TO GATHER AND NOT SCATTER IS THE PROBLEM THAT IS SOLVED

Dust and Germs Removed at One Operation

SEMDAC

LIQUID GLOSS



It cleans and renovates, producing a sanitary condition wherever applied.

It is unexcelled for cleaning hardwood floors, terrazzo floors, linoleums, etc.

It is unequaled for cleaning white enameled woodwork, white iron bedsteads, and tables, fixtures, and other polished surfaces.

It is better than soap and water, and saves the time consumed in scrubbing.

It is the ideal preparation for maintaining sanitation in Hospitals and Sanatoriums.



For Sale EVERYWHERE by All Reputable Dealers

STANDARD OIL COMPANY

(AN INDIANA CORPORATION)

CLASSIFIED ADVERTISING.

Under proper headings this column will present advertisements of Positions Wanted, Help Wanted, Articles for Sale, etc.

When requested, replies will be received at the business office of THE MODERN HOSPITAL, Metropolitan Building, St. Louis, and will be forwarded promptly to the advertiser.

The charge is \$1.00 for 30 words or less, and 3 cents for each additional word. For the convenience of both advertisers and publishers, classified advertisements are payable in advance.

POSITIONS WANTED.

POSITION—As matron or housekeeper by capable energetic woman: six years in large New York hospital; first-class references. Address Miss Wyatt, 5 East 40th street, New York City.

POSITION—As superintendent of hospital of 40 to 100 beds, or as supervisor of nurses, by graduate registered nurse having had wide experience in institutional work; unexceptional references. Address C. W. K., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION—As assistant superintendent or resident physician in large hospital, preferably east of Chicago; have had experience in surgery, first aid service, and in industrial hospital work; best of references. Address J. J. D., THE MODERN HOSPITAL, Tower Building, Chicago.

POSITION—By an experienced internist as assistant to a good surgeon, or as chief intern to a large hospital; advantages as assistant operator in surgical work more desired than salary; best references. Address J. E. G., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION—Hospital superintendent, experienced man, who is now the head of a fine institution, desires for excellent reasons to make a change; specially qualified to build up and manage the physical departments. Address Superintendent, THE MODERN HOSPITAL, 1502 Tower Building, Chicago.

POSITION—In or near large city by physician with good business and institutional experience, now assistant superintendent of large state hospital; have good, clean record and best reference; present place is permanent, but for family reasons change near city desired. Address Burr, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

POSITION—As hospital dietitian; have been in charge of special diets in 500-bed hospital until recently; left for excellent reasons; can feed patients in terms of chemical constituents of food and by caloric values; am capable of working in metabolism with physicians; I teach the pupil nurses in lectures and in the kitchen; best references. Address Dietitian, THE MODERN HOSPITAL, Tower Building, Chicago.

POSITION—As superintendent of hospital; experienced man, good executive ability, for good reasons wishes to make a change; can furnish satisfactory credentials. Address U. V., THE MODERN HOSPITAL, Tower Building, Chicago.

POSITION—Competent hospital superintendent, at present engaged, for very good reasons desires change of position; young married man practical buyer and good disciplinarian; 12 years' experience. Address Progressive, THE MODERN HOSPITAL, Metropolitan Building, St.

HELP WANTED.

NURSES—Graduate nurses desiring institutional positions. We have calls for nurses from all parts of this country. If interested in hospital positions, write us today. Aznoe's Central Registry for Nurses, 3544 Grand Boulevard, Chicago.

SUPERINTENDENT—Superintendent of nurses and principal of training school wanted for a large general hospital of the middle West; only those of experience and education considered; salary fair and position permanent if satisfactory; give fuil particulars and references in first letter. Address City, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

DIRECTRESS OF NURSES—An experienced directress of nurses wanted for a hospital of 160 beds; must be a good teacher and disciplinarian; duties to begin October 1, 1914. Address Training School, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

HOUSEKEEPER—A competent housekeeper wanted in a 75-bed western hospital; applicant must be a good manager and must thoroughly understand housekeeping and buying; a woman who can teach dieteties preferred. Address W. E., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

NURSES—Nurses wanted in all parts of the United States and Canada to act as our exclusive agents for the Sellar Hypodermic Syringe and our Centrifugal Thermometer Shaker. Write us for further information and descriptive circulars. Monnier Company, 157 Federal street. Boston, Mass.

FOR SALE.

FOR SALE—Furnishings of 10-bed hospital in Pacific Northwest; monthly receipts from \$350 to \$700; hospital in private residence, two blocks from salt water; good position for man and wife or two competent nurses. For particulars address L 77, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

FOR SALE—An opportunity to secure a valuable mineral spring at a nominal price; location ideal for a sanitarium. Address Box 565, Nor-folk, Va.

FOR SALE—Controlling interest of general hospital; best business location in Colorado; 25 beds; training school averages nine nurses; gross yearly receipts, \$13,000; will sell at sacrifice on account health. Address Colorado, THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

FOR SALE—Convalescent home; 13-room house, two baths, stable built to be altered into a house; surrounded by trees; house sets back 115 feet from street; one acre of land, or less if desired; convenient to trolley car lines; price moderate, terms reasonable. Apply to Wm. Q. Wales, 93 Olney street, Dorchester, Mass.

Classified advertising continued on page 40.

PURDY ELECTRIC CENTRIFUGE



Urinary Analysis, Blood, and Sputum

ALL THE LATEST IMPROVEMENTS

Arranged for either alternating or direct current.

Built from the base up in our own factory.

Starting box in base of

HIGH GRADE IN MANUFACTURE DURABLE AND EFFICIENT

Send for price list

WILLIAMS, BROWN & EARLE, Inc.

Dept. 81, 918 Chestnut Street PHILADELPHIA, PA.



Famous No. 711 Uniform \$2.25 White

Made of Linen Finished Cambric

Ready-to-Wear Perfect in Fit

Conforms with your own hospital standards. Send us the name of your dealer, and let us send you on approval this

Correct Nurses' Uniform



Uniforms have been the standard for twenty - five years. They are economical.

La Mode Uniforms are made under strictly hygienic and sanitary factory conditions.

Look for La Mode No Other

If you experience any difficulty in se-curing LaMode Uniforms, write us.

HAYS & GREEN 26-32 W. 17th St. New York

Send for illustrated folder "M," showing other models and list of materials in which they are made.

Five Seconds by the Watch

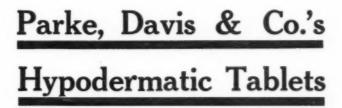
Prompt and complete solution of its components is what the physician wants—and should *demand*—in a hypodermatic tablet.

Why accept a tablet that merely flies to pieces when thrown into water?

And that is just what some hypodermatic tablets do-fine, undissolved particles settling to the bottom.

This is mere disintegration, not solution.

Such tablets are worse than worthless in an emergency.



dissolve freely and fully, forming a clear solution, without residue.

Test one by the watch!

Drop the tablet into a syringe partly filled with lukewarm water. Shake vigorously. In five seconds (or less) it will have dissolved completely. Try it!

Parke, Davis & Co.'s Hypodermatic Tablets are molded with the utmost care. They contain only ingredients that have been rigidly tested. They are true to label. They are active. They are of uniform strength.

TUBES OF 25-NOT 20.

Parke, Davis & Co.s Hypodermatic Tablets are supplied in tubes of 25. Certain competing tablets are marketed in tubes of 20. When you specify "Parke, Davis & Co." on your orders you get 25 tablets to a tube, not 20.

PARKE, DAVIS & COMPANY.

Laboratories: Detroit, Mich., U.S.A.; Walkerville, Ont.; Hounslow, Eng.

Branches: New York, Chicago, Kansas City, St. Louis, Baltimore, New Orleans, Minneapolis, Seattle, Boston, Buffalo, Pittsburg, Cincinnati, U.S.A.;
Montreal, Que.; London, Eng.; Sydney, N.S.W.; St. Petersburg, Russia; Bombay, India; Tokio, Japan; Buenos Aires, Argentina.

CLASSIFIED ADVERTISING.

Continued from page 38.

FOR SALE-Continued.

FOR SALE—Furnished hospital of twenty rooms and family suite in western city of 800 population; 100 miles surrounding country; artesian well; natural gas; splendid opportunity for doctor and wife. Address H. L., THE MODERN HOSPITAL, Metropolitan Building, St. Louis.

MISCELLANEOUS.

NEW CATALOGUE OF NURSES' BOOKS—Just ready. Send for a copy today. It's free. Chicago Medical Book Company, Chicago.

DIPLOMAS—One or a thousand. Illustrated circular mailed on request. Ames and Rollinson, 203 Broadway, New York, N. Y.

MEDICAL BOOKS—Just out, 1914 bargain catalogue of standard medical books. Send for a copy at once—now. It means dollars to you. L. S. Matthews & Co., 3563 Olive street, St. Louis, Mo.

WANTED—Volumes of "Transactions of American Hospital Associa-tion" for the years 1901, 1903, and 1906; please state price. Walter Mucklow, Jacksonville, Fla.

GENERAL SERVICE—Physicians, surgeons, and nurses furnished free for hospitals or assistants; practices of physicians, surgeons, dentists, and also of veterinarians handled and furnished in all the states; drug stores for sale; medical appliances, books, etc. (second-hand), soid and furnished; positions furnished in all the states. F. V. Kneist, Omaha, Neb.

SANATORIUM—I wish to incorporate or identify Waldheim Park Sanatorium, which is on an excellent paying basis and well patronized, with a first-class large hospital, making it, so to speak, the country annex to such an institution; would also sell it to first-class physician or take a partner. For particulars write to Dr. J. H. Voje, Oconomowoc, Wis.

BED SPRINGS—Look at our advertisement on page 72 of this number and you will then realize the special advantages of the Naber bed spring, and how its use insures greater comfort to your patients. Naber Spring Company, 19 West Lake Street, Chicago.

PURDY ELECTRIC CENTRIFUGE—For urinary analysis, blood, and sputum, with all latest improvements, durable and efficient. Price list furnished by the manufacturers, Williams, Brown & Earle, Inc., 918 Chestnut street, Philadelphia, Pa.

GYMNASTICS AND MASSAGE—The School of Medical Gymnastics and Massage offers a practical and theoretical course in Swedish movements, massage, etc., diplomas issued; patients secured. For further information apply Registrar's Office, School of Medical Gymnastics and Massage, 61 East 86th street, New York City.

NOISELESS STEAM HEATING—The Dunham System of vacuum steam heating is especially adapted for hospitals because it produces absolutely noiseless circulation of steam throughout every radiator in the building. Write for information on hospital heating to C. A. Dunham Company, Marshalltown, Iowa.

HOSPITAL AND INSTITUTIONAL LAUNDERING—Such is the title of a very complete and instructive little booklet issued for the sole purpose of supplying the hospitals and allied institutions with facts concerning their laundry work; it treats briefly of the various supplies used in the laundry, their effects on the wash, and the reasons for their use. A postal card addressed to the J. B. Ford Company, Wyandotte, Mich., will bring you a copy of this booklet.

NEW STERILIZING APPARATUS—Instruments, dressings, and water can be sterilized with the Insto Electric Sterilizer in one-half the time that is usually required by other methods. The heating element is removable, and is guaranteed for two years. Send for 16-page booklet showing our complete line of sterilizers and water heaters. The Insto Electric Heater Company, Department H, 331 Blymyer Building, Cincipati Ohio. Electric Heat

JANITOR'S SUPPLIES—We make a full line of mop sticks, mop wringers, brush holders, carpet beaters, brcom holders, and other janitors' supplies. Our automatic wringer and bucket combined is so devised that it is unnecessary for the hands to be put into the water, thus permitting the use of boiling water, strong alkali, and other antiseptic solutions. Theo. J. Ely Manufacturing Company, Erie, Pa.

PURE LIQUID PARAFFIN—The E. F. M. liquid paraffin is so pure that aromatics are not required to disguise the taste. Samples free for hospital use. E. F. Mahady Company, 673 Boylston street, Boston, Mass.

THERMOMETER ACCURACY—Clinical thermometer accuracy is secured by the use of my instrument. It has stood the test of time and is unfailingly reliable. Ninety days' trial permitted. Send me your trial order. C. R. Corbin, Inc., 739 Boylston street, Boston, Mass.

X-RAY TUBES—Our new Cathode Clover Leaf Tubes are practically indestructible. We guarantee them not to crack at the cathode neck, and that the focus is absolutely steady. Green & Bauer, Inc., 30 East Randolph street, Chicago, and 234 Pearl street, Hartford, Conn.

SURGICAL SOAP—Made from the purest vegetable oils. Prepared specifically for use in drug and operating rooms by Theo. B. Robertson Soap Company, 700 West Division street, Chicago, Ill.

RUBBER HEELS FOR ATTENDANT AND PATIENT—The use of Foster Orthopedic Rubber Heels insures comfort and foot-case, and affords the attractiveness of the "silent-step" in institutions for the care of the sick. Send outline of heel and we will supply your exact requirements. Foster Rubber Company, 105 Federal street, Boston.

INSTITUTION WATER TUMBLER—Our new (B) quality water tumbler, made from the best crystal flint glass, is highly polished and gives to the water a clear, sparkling appearance. Price and quality make it especially adaptable for use in hospitals, sanatoriums, and other institutions caring for invalids. Write us for particulars on this and other lines of quality goods with which we can serve you. Burley & Tyrrell Company, 7 North Wabash avenue, Chicago.

FOR MODERN HOSPITALS

PORCELAIN LIGHTING FIXTURES AND CONCEALED LIGHTING



SOLID WHITE PORCELAIN THROUGH AND THROUGH.

Porcelain fixtures, "beautiful, entire, and clean," emphasize and advertise the general hospital sanitation wherever installed.

The pure white surface outside and inside is untarnishable and everlasting.

Send plans, and our engineers will suggest schedule of fixtures.

CEILING LIGHTS (Direct).

Different sizes, with glass shades to match.

BRACKET LIGHTS (Direct).

Different sizes and designs.

REFLECTING BOWLS (Indirect).

Sixteen, eighteen, twenty and twenty-two inches.

1st push of the button gives night light-indirect. 2nd push of the button gives full light-indirect. 3rd push of the button turns off the lights.

Each bowl has a neatly concealed outside socket under the center for a direct light, or for a drop cord, or for any utility use, as desired.

We make the entire inside of these bowls reflecting surfaces of the highest efficiency, thus dispensing with glass reflectors, etc., and making the fix-ture washable with soap and water. Rush bowls are the most efficient light reflectors on the market and therefore the most economical.

SEMI-INDIRECT-LIGHT

We also make white glass bowls (often called semi-indirect), which do not conceal the light, but which soften the light.

Send for catalogue showing designs.

Rush Brothers Company 136 West Lake Street CHICAGO

The Bryant Silent Call System

offers many advantages for hospital service. It provides the patient with means for silently registering a desire This indication is for attendance. registered by means of incandescent lamps, simultaneously at various points - outside the room or ward door, at the nurse's desk, in the diet kitchen, and elsewhere if desired.

That the call has been registered

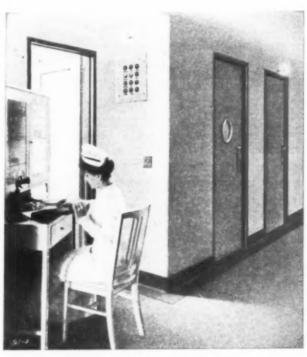
is indicated to the patient by means of a pilot light - a part of the panel at the bedside. All the signal lamps incident to a given call remain illuminated until "erased" at the bedside by the nurse or attendant.

Each panel may be confined to the push button, "erasing" button and pilot light, or may include one or more outlets for reading lamps, warming pads, etc.

Let us send details



Typical calling station to be located beside each bed in ward or private room



Annunciator panel of Bryant Silent Call System at Nurse's Station, Flower Hospital, New York, where seventy (70) Bryant Stations are installed. Delano & Aldrich, architects; Peet &

HE BRYANT ELECTRIC COMPA



NEW YEAR CAGO BRYANT BRIDGEPORT, CONNECTICUT PERMINS SAN FRANCISCO



Reduce Your Milk Bill

and at the same time better serve your patients.

It can be done—is now being done by a rapidly increasing number of hospitals. Milk is an invaluable food, and you must always have a plentiful supply for the patients and employees of your hospital—but are you satisfied with the present quality and its cost?

EVERY DAY MILK

is better than the best dairy milk because it is absolutely pure, more easily digested, always available, and can be used as a substitute for either dairy milk or dairy cream.

EVERY DAY MILK is simply cow's milk of superior quality evaporated by our special process so that a part of the water is removed, then sterilized and placed in sanitary containers. Add to it an equal quantity of pure water, and you have MILK—the same as the best dairy milk, minus only the bacteria. In the interest of efficiency and economy, write us for full particulars and a trial quantity.

Even if you are one of the few hospital superintendents now satisfied with your milk supply, it would be advisable to have one or more cases of EVERY DAY MILK on hand for use in an emergency.



FREE!

One Set of Heron Anchor Casters

To introduce our HERON BIG 3 ANCHOR CASTER, we will give one set FREE with each order for six sets of Heron BIG 3 plain, or with extensions. Your order must reach us before July 1st to secure the free set.

Make your selection of Heron Big 3 plain or extension and send in your order today.



HERON ANCHOR CASTER

		Price	Per	Set	
Big	3	plain			.\$3.00
D'	2	1.1			4 00

Heron

Heron Big 3 with extension 4.00 Heron Big 3 Anchor 3.50

Catalog free. Write us.

Heron Manufacturing Company UTICA, NEW YORK

Hospital Supply Department

WATER-TEMPERATURE CONTROL



Read the Story of the

NEW CONTROL

as told by the

Demonstrator

Gentlemen:

AT LAST we have an efficient, up-to-claims, simple, scientific, compact, non-technical, and proven method of predetermining and controlling the temperature of water for shower, tub, control table, or any hydrotherapeutic use. You gentlemen who are equipping your hospitals to give hydrotherapeutic treatment, or even the ordinary indispensable baths—you men realize that such bath treatments simply cannot be properly given with the old take-a-chance faucet or "mixer" regulating process. Water temperatures must be predetermined, immediately secured, and maintained. Even the constant vigilance of a bath attendant does not prevent mishaps under the old methods. With the LEONARD VALVE installed in your institution you can know that your prescription of a bath at a certain temperature—not merely cold, warm, or hot—can be as accurately filled as a prescription calling for the compounding of medicines.

OUR CLAIMS.—The LEONARD VALVE is the only instrument or mixing valve equipped with temperature scale (corresponding in exactness and close range of variations with the best Fahrenheit mercury thermometer) that positively enables the user, by the simple movement of a regulating lever over the face of its temperature scale, to designate and instantly secure the delivery and maintenance of a water flow at any predetermined degree of temperature. This desired temperature is maintained by thermostat regardless of any sudden changes in supply pressures or temperatures. This means absolute non-scalding protection. Simply by turning the valve pointer to a numeral designating the temperature desired you secure the water flow at that temperature, and this temperature is automatically maintained regardless of changes in supply pressures or temperatures.

OUR PROPOSITION.—You have reason to be skeptical. We are not suggesting any immediate change, of consequence, in your plumbing. Simply ask us to ship one of our small valves for your examination. Attach it to your water supply pipes anywhere—in your own bath or engineer's room. Study its efficiency and operation. You will immediately see where it should be installed in your institution, and you will then know what it will do and how simply it does its work. We are perfectly willing to go proports in this demonstration without chilipating to be proported. willing to co-operate in this demonstration without obligating you.

Write for our booklet, "STORY OF THE LEONARD VALVE," giving full information regarding the two sizes or models we manufacture, prices, and all details.

SOME INSTALLATIONS.

State Hospital for Insane, Howard, R. I.

Butler Hospital, Providence, R. I.
State Hospital for Insane, Warren, Pa.
State Homeopathic Hospital, Allentown, Pa.
Johns Hopkins Hospital, Baltimore, Md.
Westboro State Hospital, Westboro, Mass.
and many other institutions, Y. M. C. A.'s, Public Buildings, Municipal Baths, etc.

Taunton State Hospital, Taunton, Mass, Munson State Hospital, Palmer, Mass, Gardner State Colony, Gardner, Mass, Danvers State Hospital, Hathorne, Mass, Boston Y. M. C. A.



LEONARD-ROOKE COMPANY

17 Warren Street PROVIDENCE, RHODE ISLAND

Soap Talks

From two Chicago Hospitals

An Antiseptic Soap—Etherized.

													pounds
Water													
Ether												1	pint

Dissolve the Green Oil Soap by pouring hot water over the soap and stir occasionally; let the water and soap stand for a day; then add the 10 percent of ether (you may use the waste ether that is left after use in operating room); bottle and keep well corked. A small amount of this etherized liquid Green Oil Soap will clean thoroughly.

Paint or Enamel Wall Soap.

Green Oil Soap......2 pounds

Dissolve the soap as above, or, if needed at once, by heating at simmering point for half an hour; when soap is thoroughly dissolved, add the bicarbonate slowly, stirring briskly continually. (The bicarbonate should be first dissolved in a small amount of water.) This will change the liquid Green Oil Soap

to a heavy cream or paste.

To clean any painted or enameled wall or ceiling, dip a sponge in this soap stock and dampen the wall lightly with it. Do not rub hard or try to scrub with it. Simply coat it over a good-sized space. Then immediately wipe off the soap coating with another damp sponge, using clean water. All the dirt and grease will come off with the soap. You can clean walls very quickly by this method. The

paint or enamel is not dulled or injured in the least. Some hospitals use borax instead of bicarbonate to stiffen the liquid Green Oil Soap.

Don't Forget the Unusual Prize Offer.

The undergraduate nurses have until June 15th to mail their unusual uses of Green Oil Soap or any other soap in competing for the prizes as offered in the May issue of THE MODERN HOSPITAL.

Here are several unusual uses of Green Oil Soap

that have been sent in:

MANICURE.—Dissolve a large tablespoonful of Green Oil Soap in a quart (milk) bottle of hot water. Pour a little of this in a dish, and when manicuring the finger nails dip them in the Green Oil Soap solution. It makes the nails pliable, and allows them to take a high polish.

SHAMPOO.—Dissolve a tablespoonful of Green Oil Soap in a pint (milk) bottle of hot water. When thoroughly dissolved, apply this soap solution on the hair, add more warm water, and work up good suds. Rinse off with warm water, and dry in the usual way. Use no raw soap on the hair. This is exceptionally fine for oily hair.

HIVES OR STRAWBERRY RASH .- To allay the itching of hives or rash, take a bath, using Green Oil Soap. First apply the soap by smearing it raw over the affected parts (not face, however) and allow it to remain for ten minutes. Then wash off with soft cloth and warm water.

WILBER M. KELSO,

Oak Park, Ill.

No advertising above the line The "ad" is below the line

ree

(Trade Mark Registered in United States Patent Office)

9981/100 Percent Pure Potassa Soap—Makes Perfect Surgical Soap, Tincture, or Liquid Soap

SPECIAL SOAP OFFER.—We have a limited number of cases of Imported White Castile Soap—made in Marseilles, France—12 3-pound bars in a case, at the special price of \$3.45 per case, f. o. b. Chicago, or will pay freight if a barrel, or a half-barrel, or a keg of Green Oil Soap is ordered at same time. Our usual close factory price will be given on Green Oil Soap.

ALSO, will send a case of any toilet soap listed below at the special price named. (This is the 50-case lot price.)

1	Case of	100	Cakes Batola (green), olive oil\$3.7	5
1	Case of	100	Cakes Heliotrope (white), milled	0
1	Case of	100	Cakes Cocoa Hard Water (white)	5
1	Case of	100	Cakes Fine Tar 3.8	5
1	Case of	100	Cakes Witch Hazel (green), milled	0
1	Case of	100	Cakes English Glycerine (transparent)	0
1	Case of	100	Cakes Fine Cocoa Pumice	5
1	Case of	9	4-lb. Bars Green Castile (genuine)	5

These are all pure soaps of high quality. Freight allowed on 5-case order, or if sent with other goods. Write for prices on our Soap Chips, Soap Powder, and Neutral Laundry Soda.

We have been making good soap for over 20 years. You take no risk when you send us an

MONAHAN ANTISEPTIC COMPANY

New Address: 166 to 172 North Curtis Street, Chicago

We are now in Our Newly Equipped Soap Plant

ment has proved beyond question that this form of treatment is, many times, clearly indicated in acute conditions. No sicker patients exist than those who have been made the willing subjects of these experiments. They bear glad personal testimony to the value of remedial occupations.

An advanced case of cancer of the liver was admitted to one ward. This patient suffered from intense itching of the skin, and was at the time of admission covered with sores from scratching. She was set to work on twine bags, which could be boiled and perfectly sterilized. She seized eagerly upon the work, and by this means was kept from scratching. Her skin healed, and her great concern was how to keep her hands rightly employed on Sundays. To the last days of this patient's life she was busily engaged making hoods for some children who had to take a long, cold ride on the school wagon. She said, "I may not live many more days, but you had better bring me two skeins of gray and one of red, for I don't want to feel that I am out of work. If I cannot finish, some one else will."

No better example of the stimulating effect of judiciously chosen occupation can be given than that of a young man in the same hospital. He lay in the corner of the ward, his head wrapped in a pillow, one eye entirely gone, a large portion of the forehead also destroyed, the other eye fast following the first. For some years this condition had been present. His suffering was past telling. This man had been for years a trained seaman. It was long since he had smelled the brine. One day a few questions were asked him about sailors' knots. He responded pleasantly, and a little later a rope rug was put into his hands, which he finished. Somehow the feel of that rope stirred his blood. Before long his thought traveled back to the canvas hammocks which he made in the navy yard. A little more rope and some canvas was supplied, and before anyone realized just how it came about, this patient was sitting on the ward floor, his sail cloth, ropes and his old sailors' kit beside him, proudly stitching away, turning out hammocks, awnings, canvas bags, and rope rugs. "We notice," said the matron, "that he eats his dinner on the days that he is at work." After a little time his sight left him forever, and it seemed that he must give up a part of his work; but no, to the surprise of all he still turns out fine hammocks. These he sells at \$5 each, and said the last \$5 bill was "as good as a bottle full of medicine."

If it be the object to relieve pain, it must be done by some "charm." Few influences can rival color in this field. In another ward lies a woman suffering great abdominal pain, pale from many severe hemorrhages, never out of bed, eager for work. What can so weak a patient do? Water colors? She responded at once, coloring landscapes, watching the changes in the sky seen from her window for color studies. She bought a set of graded studies, and said over and over as she finished some bit of painting, "There, I forgot I had any pain." This same expression is heard again and again from many patients. The list of examples is now large, and week by week more are added. But what of the hundreds of general hospitals where no such treatment is employed? The patients wake, if they have been fortunate enough to sleep, to the consciousness of another long, weary day. Never is heard the spontaneous expression, "The time just flies the mornings we have class." This comes unsolicited from wards where the grim specter is ever present.

How shall this remedy be brought to all such needy ones? The answer is, "Through the nurses." But this will cost money. Yes, all true education costs something, but what of the drug bills? As a rule, these are O. K.'d without much question. Why not do a part of this work by more normal means? Why not substitute for the abnormal, the normal suggestion? The patient lacks the truly good things of life, color, and activity; why not invite these to minister of their abundance?

SECRETARY BOYCE MAKES STRONG APPEAL.

Urgent Reasons Why Everyone Connected With a Hospital Should Join the American Hospital Association.

Dr. H. A. Boyce, secretary of the American Hospital Association, has just issued the following strong appeal to hospital workers and thinkers to join the association:

"Organize," "deputize," and "supervise" are words which spell success in hospital management.

Many hospital workers are growing prematurely old in trying to work out problems which have already been solved by experienced hospital superintendents. The experience of these men and women is available to every member of the American Hospital Association.

Among its members may be found expert hospital administrators, financiers, architects, superintendents of nurses, and dietitians. In fact, there is no department of hospital work that has not its expert representatives in the membership of the association.

Every phase of hospital work is dealt with at the meetings. An opportunity is given the members to present their difficulties, and these are thoroughly discussed and solved, if possible, by the best men and women that the hospital world has produced.

Trustees now realize that it pays to send their officials to the meetings of the American Hospital Association. Superintendents have been able to save thousands of dollars for their boards through the knowledge gained at these meetings. No hospital administrator can afford to miss this opportunity of obtaining an up-to-the-minute knowledge of hospital management.

The small hospitals section is one of the features of the association. The discussions of this part of the convention occupy no small place in the report of the meetings. No one engaged in institution work can afford to remain outside the association.

The following extracts from the constitution and bylaws state who are eligible to membership:

Active members shall be those who at the time of their election are trustees or executive heads of hospitals.

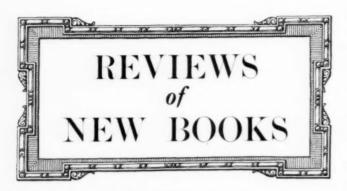
Associate members shall be those who are executive officers of hospitals next in authority below the superintendent, contributors to or officers or members of any association the object of which is the foundation of hospitals or the promotion of the interests of organized medical charities, hospital physicians, surgeons, pathologists, and superintendents of nurses.

The annual dues of active members are \$5; the dues of associate members, \$2.

The next meeting of the association is to be held at St. Paul, August 25, 26, 27, and 28.

The association's special train will leave Chicago August 23, at 11:55 p.m. Mr. Bacon, Treasurer, has arranged to take the members who go this way through the large institutions in the Windy City.

You cannot do better than inclose your application, with the necessary fee, to Dr. H. A. Boyce, Secretary, Kingston, Can. Do it now. You will promptly receive a copy of the transactions of the Boston convention of last year.



The Midwife in England—Being a Study in England of the Working of the English Midwives Act of 1902. Carolyn Conant VanBlarcom, R. N., secretary of the Committee for Prevention of Blindness, State of New York, with an introduction by J. Cligton Edgar, M. D., of Cornell University, etc., December, 1913.

This study of Miss VanBlarcom is one of several excellent papers published by the New York Committee on the Prevention of Blindness, which have grown out of the facts brought to light when the agency of the ignorant and untrained midwife in the production of blindness and other diseases of children and mothers was carefully scrutinized. Facts concerning conditions in New York and other states are indisputably deplorable, but exact conditions are not known because they are nowhere recorded. How much they might be improved by the training and supervision of midwives is shown by England's experience, where the percentage of deaths among infants dropped in nine years from 151 per 1,000 in 1901 to 106 per 1,000 in 1910, and the percentage of deaths from puerperal sepsis and accidents at childbirth dropped from 4.65 per 1,000 in 1901 to 3.69 per 1,000 in 1909.

In England midwives attend about 50 percent of all births, and there are many schools where midwives can obtain excellent theoretical and practical instruction. When they are once trained, their work is carefully inspected and supervised, and, in the event of any failure to comply with the necessary regulations, their license to practice is taken away. In the United States how different. There is but a single school of high character in this country, that connected with Bellevue Hospital, with accommodations for fifty pupils. The character of the untrained women is shown by the following extract from Miss VanBlarcom's report:

"Although there are in America many competent midwives who have received careful training in European schools, reports from various parts of the country indicate that the majority of those practicing here are dirty, ignorant, and untrained. The extreme ignorance of some of the more unfit of these women is suggested by the superstitions which they foster; one, for example, will advise the mother to wear a string of bear's teeth to make the child strong; another, that in cases of tardy labor it is beneficial to throw hot coals on hen feathers and place them under the patient's bed; another, that it is flying in the face of Providence to bathe the infant before it is two or three weeks old; while others recommend that such articles as cabbage hearts, bacon rinds, beer, etc., should be included in the baby's dietary. This type of midwife knows nothing of hygiene, asepsis, or antisepsis, and is often practically responsible for the death and invalidism of mothers as well as the death, blindness, and mental and physical impairment of infants. Visits to the homes of these women fill one with dismay, for only too often one finds that a midwife with a large practice is herself a dirty, unkempt person, living in a squalid tenement. A deplorably large group is exemplified by the old woman of 80 who declared, 'I am too old to clean, too weak to wash, too blind to sew, but, thank God, I can still put my neighbors to bed.'

"Only too often the American midwife assures her patients that it is natural for babies to have sore eyes, and she prescribes such remedies as milk, lemon juice, lard, raw potato, scraped beef, saliva, etc., and when the babies go blind, she piously declares that it is the will of God."

It is thought by the author that at least 40 percent of all the births in the United States are attended by midwives. The figures presented would seem to indicate a larger number, as, for example, San Francisco, 25 percent; Omaha, 25 percent; New York, 39.2 percent; Chicago, 45 percent; Toledo, 51 percent; New Orleans, 70 percent; St. Louis, 75 percent; Alabama, 60 percent; Maryland, 40 percent; Mississippi, 80 percent; Virginia, 35 percent; North Carolina, 50 percent, and Wisconsin, 50 percent.

In this country there is little or no law to regulate the practice of midwifery. Midwives are allowed to practice without any restriction in thirteen states, and in fourteen there are no general laws relating to their training, registration, or practice. Out of the remaining twenty-one, twelve and the District of Columbia require that they shall pass an examination before receiving a license; six restrict attendance to normal cases; seven have irregular and inefficient laws; and only two, New York and Pennsylvania, have competent laws. All must agree with Miss VanBlarcom that midwives cannot be abolished or ignored. They must, on the contrary, be educated, inspected, supervised and licensed.

The data respecting the education of midwives in England are instructive and suggestive. Every lying-in institution in the United States which possesses the requisite amount of clinical material and a competent staff of physicians and nurses should undertake the work of education. The midwife should have sufficient education to enable her to attend with profit courses of instruction and practical work, covering a period of from six to twelve months. She should be examined prior to receiving the license to practice, and her work should be supervised by competent inspectors. The ignorant, uneducated women who are now midwives should be eliminated as rapidly as possible.

The chapter entitled "Early History of English Midwives" is not without interest and presents some novel facts. In England in the sixteenth century midwives were licensed by the bishops of the Catholic Church in order that they might christen children in dire necessity, but no attention seems to have been paid to their other qualification to practice. In the same century there was much complaint of the incompetence of these women, and the author deplores that the public is unmoved by similar ignorance and negligence today.

She quotes with approval Sir Percival Willoughby's ideal of the midwife in the seventeenth century. He says, "I desire that all midwives may gain a good repute, and have a happy success in all their undertakings; and that their knowledge, charity, patience, with tender compassion, may manifest their worth among their women, and give their women just cause to love, honor, and esteem them. The midwife's duty in a natural birth is no more but to attend and wait on nature, and to receive the child, and her best care will be to see that the woman and child be fittingly and decently ordered with necessary conveniences. And let midwives know that they be nature's servants. Let them always remember that gentle

proceedings (with moderate warm keeping, and having their endeavors dulcified with sweet words) will best ease and relieve and soonest deliver their labouring women." HENRY M. HURD.

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Burdett's Hospitals and Charities for 1914. Being the Year Book of Philanthropy and a Hospital Annual by Sir Henry Burdett. Price, \$2.60. Published by the Scientific Press, 28 Southampton street, Strand, W. C., London.

Sir Henry Burdett's annual work needs no introduction to the hospital people. It has been coming to us for years, better and better with each succeeding edition, and containing more and ever more information. There is a list of almost all the hospitals and similar institutions in the world, with sufficient information about each to satisfy ordinary purposes; as, for instance, there are expenditure tables for the hospitals everywhere, that give a fairly accurate idea of the details of hospital expenditure in all parts of the world. There are also income tables, showing the resources of hospitals everywhere. There is in addition an immense fund of information about institutions other than hospitals, such as asylums, orphanages, homes, and various charities.

A Thousand Books for the Hospital Library. Selected by Edith Kathleen Jones, librarian of McLean Hospital, Waverley, Mass. Published and sold by the American Library Association Publishing Board, 78 East Washington street, Chicago.

This is a charming list of books in a pamphlet of fifty-six pages. Someone has remarked of Miss Jones' book list for the sick that it should be a luxury to be just sick enough to lie in bed and read the list and think about the possibilities of the books themselves. There are reference books, books on religion, social science, mythology, the sciences—astronomy, botany, zoology; books on gardening, arts, and crafts, the fine arts, the useful arts; on painting, music, sports, and pastimes; nature and outdoor books. There are books on fiction, poetry, and the drama; books on geography and travel, biographies, histories, children's books; books for every age, sex, temperament, and taste; in fact, books for every conceivable condition in life, all focused for the use of sick people.

The Junior Nurse. By Charlotte A. Brown, R. N., instructor Boston City Hospital. 12mo, cloth. Price, \$1.50. Pp. 208. Illustrated. Lea & Febiger, Philadelphia and New York, 1914.

Miss Brown has most properly introduced her volume with chapters on the qualifications of a nurse. having established her probationer in the hospital, she introduces her to personal hygiene, sanitation, and the simpler forms of nursing technic, such as bed-making, admission of patients, and the lighter attentions, such as feeding patients, giving them a drink, and so on. Then follow the routine duties of nursing, in theory and in practice. The chapters on bandaging, the care of emergencies, and the handling of infectious and contagious diseases are especially interesting and profitable. illustrations are clear and helpful. Such technical operations as the giving of enemas, irrigations of various sorts, nutritive feeding per rectum, the giving of douches, catheterization, lavage, and so on; hypodermic and subcutaneous drug administration; these are all written simply and clearly. The tables of weights and measures are reduced to the simplest forms. The chapter on symptoms is especially interesting. Indications of fevers, diseases of the skin, the organs of digestion and circulation, diseases of the urinary system, and the nervous systemthese are excellent. This is not only a good book for the junior nurse and the probationer, but it will prove of great value during the whole of a nurse's life.

Institution Recipes for Use in Schools, Colleges, Hospitals, and Other Institutions. Emma Smedley, superintendent of High School Luncheons, Philadelphia. 8vo. Price, \$1.25. Pp. 248. Published by the author at 6 East Front street, Media, Pa.

Miss Smedley announces that the material for this book was originally prepared during her residence as instructor in dietetics at the Johns Hopkins Hospital. This is a second edition. The book contains an immense amount of valuable information, including weights and measures and their tables, menus of every description, with a chapter on the organization of the school luncheon and details of its equipment. There are brief introductory remarks under various classes of food, such as oysters, eggs, cereals, vegetables, beverages, seasoning, etc. The work should be a valuable reference book for diet schools and kitchens.

Anatomy and Physiology—A Text Book for Nurses. John Forsyth Little, M. D., assistant demonstrator of anatomy, Jefferson Medical College, Philadelphia. 12 mo, cloth. Price, \$1.75. Pp. 483, with 149 engravings and 4 plates. The Nurses Text-Book Series, Lea & Febiger, Philadelphia and New York, 1914.

It is the idea of this reviewer that any text-book for nurses should go just enough into detail to give nurses what they need for application in their own profession and to give that little in a well-ordered, methodic, stepby-step manner that will bring the student logically from one subject to another, so that she may be gradually introduced to the subject rather than abruptly brought face to face with difficult problems that she is unable to grasp. Dr. Little's book comes nearer to perfection in this regard than any that this reviewer has had the good fortune to see. The text is extremely clear, the arrangement is logical and concise, beginning with a description of the human body as a whole, then into parts, thence to its chemical and physiological components; a short chapter on metabolism, the cell, its structure and functions; a description of the different tissues of the body and their cellular construction; thence to osteology, the muscles, and following this a well-illustrated chapter on the circulation of the blood, including the anatomy of the heart, the fetal circulation and the distribution. In regular sequence there is a brief study on the arteries, veins, and lymphatics, a discussion of the respiratory system, with a brief description of the physiology of respiration; the anatomy of the organs, and a brief discussion of the process of digestion, with all the topography from the lips to the lower outlet. The skin is given a good deal of attention, as well as other organs of secretion. The nervous system is adequately, though not tiresomely, discussed, including the anatomy and physiology of the brain; then follow chapters on the sympathetic nervous system and the nerves of special sense. The work proper ends with a brief, but carefully thought-out, description of the female reproductive organs, with excellent illustrations. Incidentally, it might be asked why it is that no work on nursing even mentions the fact that there are male sexual organs, and should not nurses know about both sexes if they are going to be called on to nurse both? There are tables of weights and measures following the regular matter, and an excellent glossary. Altogether, the work is a distinct contribution to the literature of



The Open-Door Hospital Staff.

To the Editor of THE MODERN HOSPITAL :

I am writing you for some information regarding the customary rules and regulations for staff members of an open I am particularly interested in knowing by whom staff members are appointed, whether by the board of trustees or by self-election, and whether the appointment is for a number of years or for such time as they are considered valuable to the hospital. Who decides when a staff member is to be dropped, and what means are taken for such procedure? If you have any copies of rules governing staffs of open hospitals, I should appreciate it very much if I might have a copy.

NETTIE B. JORDAN,

Superintendent Aurora Hospital, Aurora, Ill.

The staff of a hospital is intended merely to treat free cases in the institution, unless staff members are to assume certain responsibilities aside from the treatment of patients: otherwise there would be no occasion for a staff. As these free cases have no physician of their own, and must be satisfied with the physician provided by the institution, and, as the board of directors must be responsible for the care of these people who are more or less helpless and dependent, then the board cannot waive its duty to appoint its medical staff. If there are no free cases to be considered in the hospital, then there is no good reason why there should be a hospital staff, and it would be entirely proper to allow every physician in the community, who is in good standing in his profession and whose professional and personal conduct are honorable and upright, to treat his private patients in the hospital; but he need not be on a staff for that purpose, and the hospital will fare better if those who are entitled to treat only private cases in the institution are not on the staff, because in that case all medical men can be assured that they will receive equal treatment and that there will be no

In the event that there are free patients, the hospital board must appoint the medical staff to take care of them, and, as I say, cannot waive this duty. There is some doubt about the best conditions and the length of time for which such a staff should be appointed. If the appointment is made each year, unless there is a very definite understanding that the staff members will be displaced only for cause, there will likely be a want of interest and enthusiasm for the hospital, because men who feel that they may be dislodged in a few months will not take the same interest that they would if they felt that their places on the staff were permanent, subject to their own conduct, and on the basis of their value to the institution and not to any extraneous influences. On the other hand, if members are appointed for too long a time, they grow careless and rest on their laurels, and the hospital will suffer in that proportion.

Personally, I am under the impression that the best results are to be had if appointments are made every year,

subject to a definite policy on the part of the board of trustees that changes will be made only for cause.

The Presbyterian Hospital in Chicago and a number of other excellent institutions have a clause in their staff rules providing that there shall be an age limit to the service of staff members. The Presbyterian Hospital has fixed sixty-five years as the age at which members are retired automatically, and without any action on their part or on the part of the board of trustees. In this way members who have served a long and honorable career in the institution, and whose activity is hampered by age, can be eliminated without any feeling either on their part or other members of the staff, or their friends.

A few institutions that I know fix a service limit instead of an age limit. One excellent hospital fixes the limit at twenty years, another at twenty-five, and still another at thirty. Personally, I prefer the age limit, because a man who began his service on the staff at an early age might be just at his best when he was called on to retire under the service limit.

I do not happen to have or to know about any rules governing staff members in the so-called "open-door" hospital. I think the having or not having definite rules for the conduct of the staff will depend a good deal on the organization of the institution. I have never had rules in my own institution work to govern the staff, and have depended entirely on my personal touch with the members. I have had rules for the governing of the various departments of the hospital, as, for instance, the rules for the operation of the maternity department, in the surgical operating rooms, and so on through all the services, and these rules were always created by the service men in those departments in conference with the superintendent of the hospital, and invariably I have had these department rules approved by the board of directors, so that they will have sufficient standing in the institution to compel even the men who helped to create them to obey them. If the staff in a given service were permitted to make its own rules, set them into force, and operate under them without any further procedure looking toward the authorization of the rules, they would feel they would have the right to disobey them at any time that occasion seemed to indicate; but, where the board of trustees has approved them, the superintendent of the hospital can fall back on that approval at any time and insist on their JOHN A. HORNSBY. enforcement.

Sterilization of Rubber Gloves.

To the Editor of THE MODERN HOSPITAL :

We wish to direct an inquiry to you concerning the crilization of rubber gloves. We would like to have a sterilization of rubber gloves. conclusion of the best authority on the subject. At present we are using the Miller glove, and frequently find them inferior and easily torn after sterilization. Whether this is due to old stock or an incorrect process of sterilization, we are not quite certain. You will do us a favor by giving us an authoritative process of sterilization, time required, degree of temperature, etc., and we thank you in advance for this favor.

ALLEGHENY GENERAL HOSPITAL, J. K. Stage, Purchasing Agent.

Every company making or dealing in rubber gloves is likely to have faulty gloves on hand at some time, or gloves that have been kept in stock so long that they have vulcanized in such a way that stretching will tear them. I think you will find that such gloves are not confined to any one manufacturer; but every glove ought to be tested out in the hospital before it is finally accepted and put into use. The best way to test these gloves is to blow them up and look them over carefully for flat-looking spots.

These spots are just a little different in color, and they have a sort of caked appearance, which means that they are vulcanized and will break down. I think it is the fault of the person in the hospital who has to receive gloves if bad ones or defective ones are accepted, because there is hardly anything in which faults can be detected more easily.

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The sterilization of gloves is something about which hospital people differ. Surgical nurses have different ways of doing it, and surgeons prescribe different methods, and, when we finally agree on a process of sterilization, we must do so in a conference made up of the surgeon who is to use the gloves, the laboratory bacteriologist, who can fix definite rules about the death point of the various harmful microorganisms, and the surgical nurse, who must develop and conduct the technical operation.

The process that I personally know most about, and which I believe to be thoroughly effective, although perhaps no better than other methods, is as follows: after use the gloves are washed in hot water and green oil soap, and afterward rinsed in clear hot water. They are then dried with a towel and powdered inside and out with the ordinary talcum. When the gloves are intended to be sterilized, they are wrapped up-say, a dozen packed together loosely-in an ordinary surgical towel, and are placed in the sterilizer, which develops a pressure of fifteen pounds, or 250 degrees Fahrenheit. Ten minutes "vacuum" is given, then twenty minutes live steam, then ten minutes "vacuum" for the purpose of drying out. The gloves are then removed from the sterilizer, under sterile conditions well known to surgical nurses, and are placed in sterile glass jars or sealed, waxed envelopes, and are kept on the rack in the surgical operating room or among the nurses' supplies until called for. I think the dry heat part of this sterilization process is bad on the gloves, and is responsible for their breaking down after five or six sterilizations, but I doubt whether there is any process that may be called an entirely "wet process," either hot water or live steam, that will insure sterilization. The hazards of reinfection in the drying-out process JOHN A. HORNSBY. are too great.

A \$30,000 PRIVATE HOSPITAL.

Every Room of La Cresse (Wis.) Institution to Be a Sun Parlor.

Dr. W. A. Henke, who formerly conducted a hospital at Tomah, Wis., has given out plans for a modern hospital building which he proposes to erect at La Crosse. The structure will be 40x80 feet, two stories, basement, and subbasement. It will be of pressed brick construction, with Bedford stone and terra-cotta trimmings. The style of architecture is unique. Seven pilasters will extend from the base on each side and will end in finials at the top of the structure. Sleeping porches at the front and rear of the building are built on piers similar in effect to the pilasters at the sides of the building.

The brick exterior will be red, the terra-cotta trimmings to match the Bedford stone, the latter to be used for purposes of sills and coping.

The entire structure will be fireproof. The floors will be of reinforced concrete, those in the patient's rooms and corridors covered with rubber matting. The stairways will be of steel with composition treads.

The first and second floors will be given to 17 patients' rooms, several of which will be large enough for two beds.

The rooms will be 14 feet deep and range in width from 11 to 13 feet.

On the first floor, to the right of the entrance, will be an office and waiting room. On the second floor will be a large operating room, a sterilizing room, a wash-up room, and a small operating room. The operating and sterilizing rooms will be equipped with large skylights. The one over the large operating room will be one-half the size of the foyer. Besides the skylights in this room, large window space on two sides of the room will furnish a maximum of light.

Eight-foot wide corridors extend from the front entrance to the rear exit. An electric push button elevator is at the right of the corridor at the rear of the building. On each floor alongside the elevator shaft is a diet kitchen, with a dumb waiter traveling to the main kitchen in the basement.

The building is so arranged that each room will be practically a sun parlor. Over each patient's door and in the office will be colored lights, part of a signal system by which each patient may call the attention of a nurse. The lights can be extinguished only by opening the patients' doors.

The rooms will be finished in birch, mahogany stained and white enameled. The toilet rooms will be finished in composition. Ventilators will connect each room and toilet with the roof ventilators. Pullman ventilators will be part of each window.

The sleeping porches at the front and rear will provide room for every patient. The porches will also be able to take care of typhoid and pneumonia cases.

The basement will be given to nurses' rooms, boiler and fuel departments, laundry, kitchen and dining room. The subbasement will contain a fruit and root cellar and the elevator machinery.

A vacuum cleaning system and either a hot-water or vapor heating system will be installed.

The roof will be of tar and gravel, and at a later time may be finished with promenade tile for a roof garden. The building, when completed, will cost approximately \$30,000.

Superintendent A. E. Baber, of the State Hospital for the Insane at Dayton, Ohio, has announced that a class in nature study will be formed among the patients at the hospital. The patients will be given a plot for cultivation under the direction of a trained gardener. They will also be taken on botanizing walks through the woods and fields in the neighborhood. It is believed that this intelligent and sympathetic contact with nature will not only give the patients wholesome diversion, but will have also a constructive effect on their minds, carrying them out of tendencies to morbidity to the more normal and natural interests of healthy men and women.

Mrs. D. D. MacMillan, an American woman, who has devoted several years to the upbuilding of Chelsea Hospital, London, England, is now in this country endeavoring to arouse interest in the hospital to be erected at Atlantic City, N. J., during the coming year for the treatment of children afflicted with tuberculosis of the limbs. After an extensive study of the subject, Mrs. MacMillan is of the opinion that tuberculosis of the limbs cannot be treated so successfully in institutions caring for patients afflicted with pulmonary tuberculosis as in separate hospitals, owing to the fact that their already weakened condition renders them particularly susceptible to lung involvement. She asserts that tuberculosis of the limbs is not given the attention in this country that it demands. The hospital at Atlantic City will be maintained for children coming from states east of the Mississippi River. It will be of the cottage plan, each cottage to cost \$5,000, and be designed to accommodate 24 patients.

LETTERS TO THE EDITOR

Ventilation of Hospitals.

To the Editor of THE MODERN HOSPITAL:

In the April number of your journal appeared a very timely article on the mechanical ventilation of hospitals by T. J. Van der Bent. The points raised should stir up some action on the part not only of the medical profession, but also among engineers and architects. It is undoubtedly true that much diversity of opinion exists among the medical profession as to the merits of mechanical ventilation in hospitals. It occurs to me that possibly there is a reason for the stand taken by those responsible for the opposition to mechanical ventilation. I have personally noticed that those among the medical profession who oppose mechanical ventilation usually cite one of two chief reasons as the cause of their stand. One of the reasons given is the alleged fact that the mechanical ventilation system in some hospital or a number of hospitals is a flat failure; the other is that some authority in whom they have confidence is quoted as being opposed to mechanical ventilation. The first reason is a legitimate one, as there are many hospitals as well as other buildings in which, on account of certain causes, the mechanical system of ventilation is not a success. The second reason is so obviously and so closely related to the first that it is hardly necessary to discuss it.

The first objection noted against mechanical ventilation is really one which ventilation engineers, with the cooperation of the medical profession and architects, might work out. As pointed out by Mr. Van der Bent, it would be very satisfactory from a purely architectural point of view to omit all consideration of mechanical ventilation in buildings if it can be considered unnecessary. The complications which arise from the installation of a mechanical ventilation plant are extremely annoying and expensive for the architect, and frequently interfere with the most successful solution of other very desirable features. Aside from the cost of such plants themselves, they materially increase the area of a building and therefore its cost. If unnecessary, the money expended on the plant would be better spent otherwise, and the increased area of the building devoted to other purposes. In my opinion a mechanical ventilation system is a necessity for a large hospital building, and it is difficult to say where to draw the line in this connection between a large one and a small one. Under certain conditions it is impossible to remove the air from a building without resorting to mechanical means, and, unless it is removed, no fresh air will enter, either by windows or other means of access. The air entering is in exact proportion to the quantity removed. It must be removed-not transferred from one part of the building to another. For wards or other sleeping apartments it may suffice to resort to mechanical means only for removing the air, the open window being used for the entering air, and direct radiation being depended upon for heating it. Window deflectors are usually quite satisfactory for avoiding cold draughts. Where the air available from windows is dirty, charged with smoke or gas, or otherwise objectionable, the problem grows much more "mechanical." In operating rooms window ventilation is at times very objectionable. Here mechanical supply as well as exhaust is certainly advisable. In toilet rooms, work rooms, and other similar departments, mechanical supply in addition to the window ventilation is usually advisable, but mechanical exhaust is a necessity.

The question now arises as to why the mechanical sys-

tem is so often a failure. I would say that, first of all, the cost of maintenance was the first cause. How many mechanical plants are there that will be found always running to the full capacity for which they were designed? Faulty design may be placed as the second cause. Neither the engineers nor the architects must be entirely blamed for faulty design. Frequently causes beyond their control make it impossible to design the plant in such a manner that all conditions are ideal. Here is where cooperation is necessary. Neither the engineers, the architects, nor members of the medical profession could alone, in all probability, make a successful hospital successfully ventilated. The situation reminds the writer of the case of a fire-protection expert's design for a self-closing firedoor. It would close satisfactorily enough in case of fire, but was practically useless for anything else. When the situation was pointed out, the answer was, "omit the door entirely, or use this one," which would not work.

VICTOR A. MATTESON, Architect, Chicago.

ST. PAUL GETTING READY FOR VISITORS.

Dr. Ancker's Committee Promises an Enjoyable Time to Attendants on the Hospital Convention.

The Executive Committee of the American Hospital Association has sent out the following circular to members:

As you know, the annual meeting of the American Hospital Association will be held in St. Paul August 25 to 28. You are, of course, interested in the work of the association and are planning to attend.

St. Paul is making preparations to the end that all who attend this meeting will have not only the benefit of the sessions, but will be able to see one of the most beautiful cities of the country when it is at its best. You will enjoy a visit here this summer. In case you are not familiar with the city, there is inclosed a book describing and illustrating a few of its beauties and attractions.

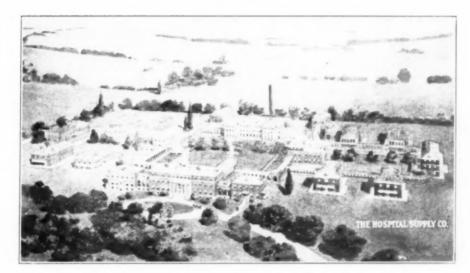
St. Paul has been called "The City Worth Seeing," and the people of the city extend to you a cordial invitation to pay them a visit at this time, when you can combine a pleasant trip with a meeting you should under no circumstances miss.

A. B. ANCKER, Chairman.

After seven years' energetic service as director of Public Health and Charities, Philadelphia, under two administrations, Dr. Joseph S. Neff on April 30 resigned that high office. Dr. Neff suffered a severe breakdown during the latter part of the year 1913, after which he took a long vacation, but he found he was unable to continue the strain of his office on returning. His successor is Dr. Richard H. Harte, a surgeon of widespread reputation and a gentleman who is very well known in the city of Philadelphia. Dr. Harte has taken hold of his new duties with unusual energy and tact.

So much about ventilation has been heard lately that one is led to rely more on old-fashioned ideas than scientific theory. Mr. Leonard Hill points out three properties of air that have nothing to do with its chemical purity, temperature, movement, and humidity, although on physical grounds all influence mind and body. Residents of a dry, cool atmosphere are more energetic than those living in regions where the air is still, hot, and muggy. Such conditions react on the whole metabolism, aiding or hindering nutrition. Climate influences habit and character, and nose and throat complaints are often attributable to overheated rooms and offices. Movement of air cools by promoting evaporation, acting as a stimulus to the nervous system. Authorities now hold the only effective method of ventilation is by the old plan of opening a window. Mr. Hill claims the chemical purity is almost a negligible quantity, and that movement and humidity are the only points to be seriously considered.

Modern Hospital Equipments by The Hospital Supply Company No. 5



The Winifred Masterson Burke Relief Foundation, White Plains, New York
The Largest Convalescent Hospital in the World
McKim, Meade & White, Architects-Dr. Frederick Brush, Superintendent
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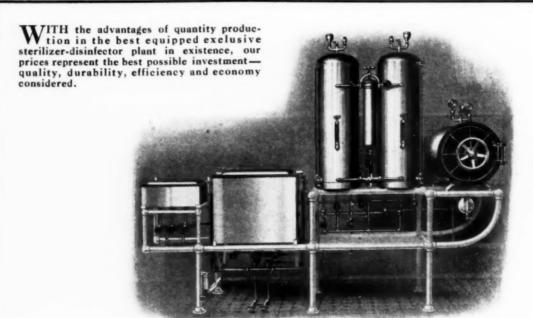
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Director of Pathological Department

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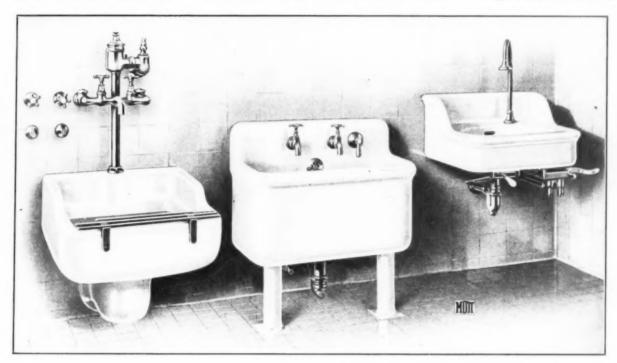
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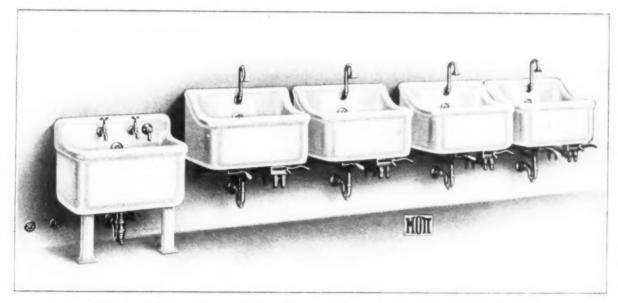
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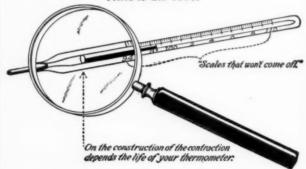
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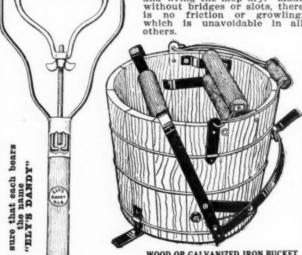
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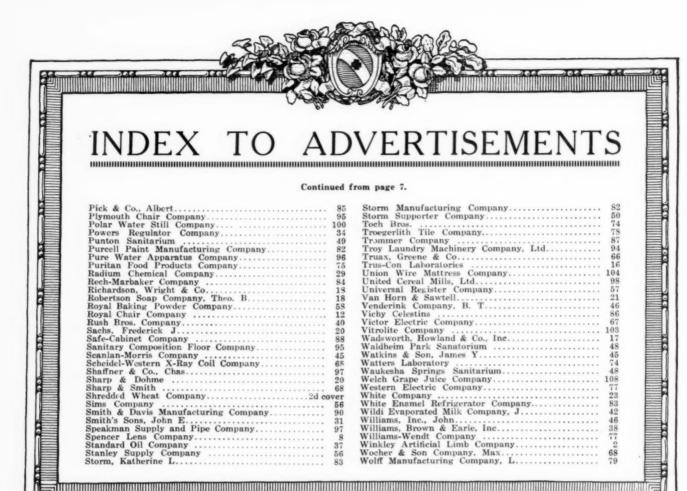


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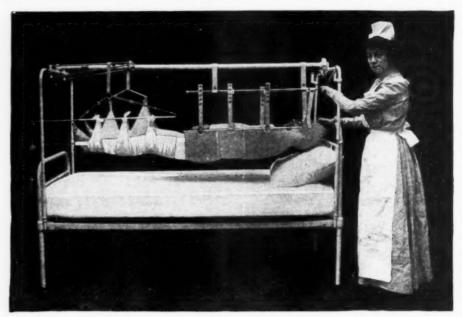
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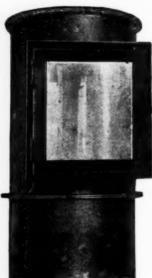
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And one in keeping with the Hospital discipline and efficient routine.

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It substitutes machine accuracy and precision for human fallibility and carelessness. Makes any mark of sixteen characters possible from a combination of the letters of the alphabet, the numerals 1 to 9, a dash, a space, and a special selected character. Enables you to separate house, staff and ward linen. In use in the best equipped hospitals in the United States. Endorsed by leaders in Hospital management.

Complete information send on request, without charge or obligation. Simply point out this advertisement to your secretary.

Notice—The fundamental principles of the National Marking Machine are covered by basic patents issued on August 30, 1910, and April 22, 1913. Suit for the infringement of these patents is now pending in the Federal Court.

The National Marking Machine Co. 1062 Gilbert Avenue CINCINNATI, OHIO

302 B



Promotes the comfort and restfulness of the patient

EYE COMFORT LIGHTING SYSTEM

With Eye Comfort Lighting System there are no brilliant, glaring, exposed light sources to disturb and irritate the patient's nerves.

The Eye Comfort Lighting System is the only scientific indirect lighting. It is indorsed by leading hospital authorities as the most satisfactory system yet devised for efficient hospital lighting. It is economical—perfectly sanitary—fixtures easily cleaned.

The bare tungsten lamps are concealed in powerful, silvered mirror, opaque X-Ray Eye Comfort Reflectors—made of crystal glass in one piece—plated with pure silver, forming a reflecting surface of the highest known reflecting power. The strong light rays are directed from the powerful opaque reflectors against the ceiling, producing a clear, even light—free from harsh glare—always ample, yet soothing and restful to the patient's eyes.

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Send today for new interesting booklet on hospital illumination, "The Logical Light for the Hospital." Let us tell you what St. Mary's (Mayo Bros.) Hospital, Rochester, Minn.; Samaritan Hospital, Youngstown, Ohio; Toronto General Hospital, Toronto, Ont.; Isolation Hospital, Milwaukee, Wis.; St. Agnes Hospital, Fond du Lac, Wis.; and others think of Eye Comfort Lighting for hospitals.

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Unexcelled for Hospitals, Sanitariums, Etc.

A simple finger pressure on the push button allows the chair back to assume automatically any one of twenty different positions. This feature enables the patient or convalescent to change his or her position as frequently as desired without assistance, which saves the attending nurse time and trouble, enables her to handle more patients, and makes your institution more efficient.

Due to this adjustable back, Neuritis patients have been known to be cured and Asthma patients enabled to sleep comfortably in any position.

The foot rest assures absolute relaxation and comfort. Out of sight when not in use. A basket for Newspapers, Books, and Periodicals is concealed in the foot rest.

"Push the Button-and Rest"



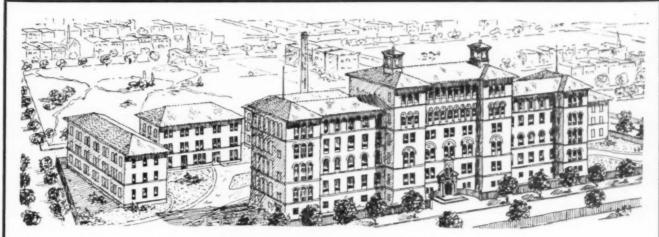
These chairs are fully guaranteed, sanitary, occupy small space, serve many purposes, and cut down furniture expense.

Used in Battle Creek Sanitarium, Battle Creek, Mich.; St. Joseph Hospital, Fort Wayne, Ind.; St. Francis Hospital, Waterloo, Iowa, and many others.

They also make parlors or rooms of Clubs, Hotels, Y. M. C. A.s, etc., seem more homelike and comfortable. 1,000 styles. Special price on quantity lots.

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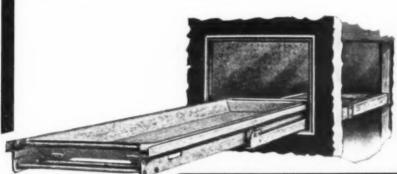
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Send for descriptive circular, specifications, and price list.

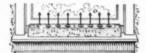
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The Saybrook Invalid Tray is a small oak folding table, making possible the serving of meals in bed with the same comfort that is enjoyed at a dining table. It is equally convenient as a reading stand or a writing desk. When folded, it makes a light and pleasing service tray.

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The Modern System for Nurses' and Doctors' Call

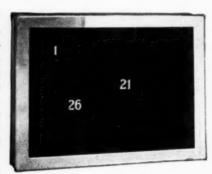
Description—The patient can call a nurse with the extension push located near his bed. The pressing of the button will energize a locking relay, which will close a circuit, light the light over the door, a light at the nurse's station, and several pilot lights located where deemed necessary. The pressing of the reset-button either at the patient's bedside or at the entrance to the ward will extinguish the lights.

Description of Apparatus—At the patient's bed is a switchplate with a reset-button and a bushing, with a silk cord and an extension push-button. The light over the door consists of a switchplate, lamp-socket, and lamp. The lamp annunciator at the nurse's station consists of a metal or wood case, nurse's station consists of a metal or wood case, lamps, and opals, properly marked. Pilot lamps are similar to the lights over the door, but are of a different color. Relay cabinets and terminal boxes are placed at some central point on each floor. These boxes are to be equipped with sufficient relays and terminals to take care of all the switching for the lights of that entire section.

Wiring—For each patient's room three wires run direct to the relay box; two of these wires are to set and release the relays; the third is to light the light over the door. There is also one positive common wire to all lamps and push-buttons, making a total of four wires. a total of four wires.

Any electrician can install this system. Send us the name of your electrician, and we will arrange to have him show it to you.

The Master Annunciator showing the little lights which flash when a particular ward is called. A similar light flashes in the ward.



De Veau Telephone Mfg. Co.

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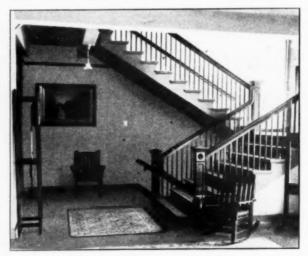
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Write for complete information, asking about any special problem that may interest you. You will receive a prompt and full reply.

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Each ounce of this mixture has a food value of 6.2 calories—affording sufficient nourishment and in a form readily assimilable.



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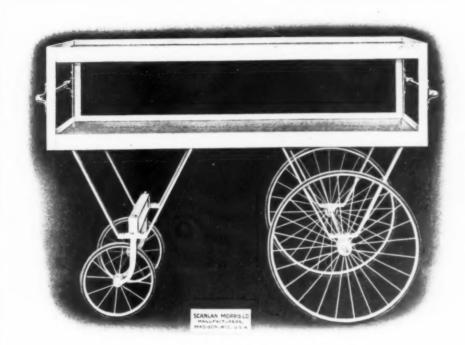
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One hand operates the Dosimeter Inhaler. This feature is in itself of sufficient merit to render the apparatus of exceptional value in the busy operating room of the hospital, and makes it indispensable in minor operations and emergency cases.

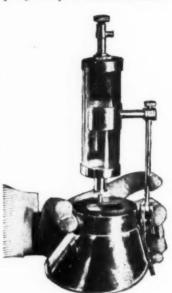
A turn sets the nozzle to deliver in drops the

amount of anesthetic desired. The surgeon can confidently entrust the Inhaler to his nurse, or anyone for that matter, to be held in place on the patient's face to continue anesthesia throughout the operation. The surgeon may feel assured that no more nor less anesthetic will be poured into the mask than he has set the nozzle to drop. The anesthetic is delivered *drop by drop* with automatic

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manufacture the device, which sells for \$20. They will send it on free trial to hospitals subscribing to The Modern Hospital. -Adv.





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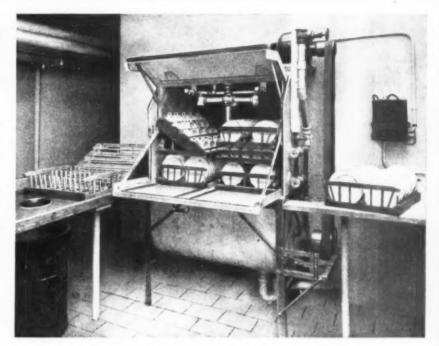
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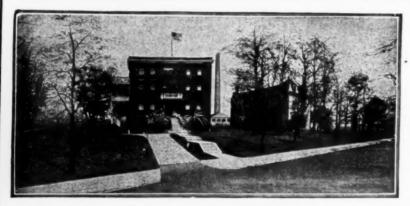
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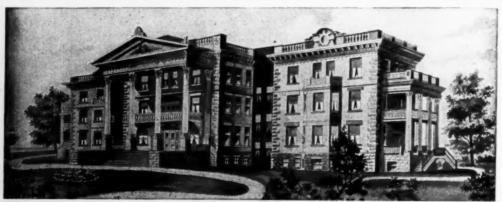
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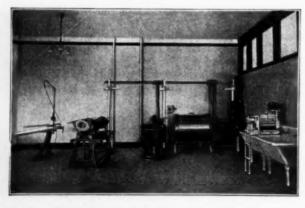
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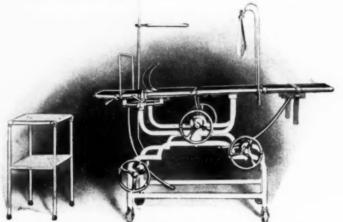
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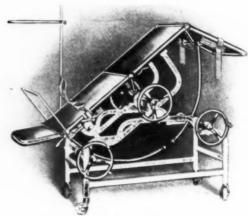
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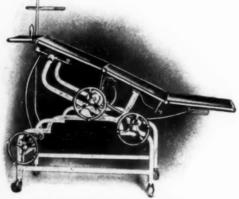
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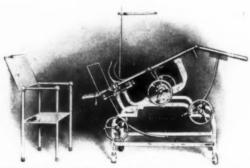
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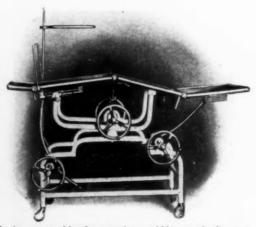
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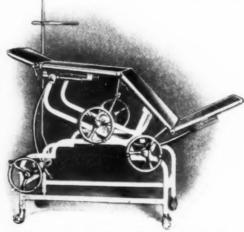
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1½ pints graham flour, ½ pint Indian cornmeal, 1 teaspoon salt, 2 teaspoons Royal Baking Powder, 1¼ pints milk. Sift together flour, cornmeal, salt, and powder. Add milk, and mix into a moderately stiff batter. Half fill cold gem pans well greased. Bake in a hot oven ten to twelve minutes.

WHITE GEMS.

1 pint flour, 1 teaspoon Royal Baking Powder, ½ teaspoon salt, 1 teaspoon sugar, 3 teaspoons melted butter, 1 cup milk, 3 eggs, whites and yolks beaten separately. Mix as for muffins, adding beaten whites of eggs last; bake in hot, well greased iron gem pans.

SPONGE CAKE.

2 cups sugar, 7 eggs, 1 cup flour, 1 teaspoon Royal Baking Powder, pinch of salt, 1 teaspoon extract lemon. Whip sugar and eggs together until thick and white; add flour, sifted with powder and salt, and the extract; mix together quickly; bake in tin lined with buttered paper, in slow oven, 30 minutes.

BRAN BISCUITS.

 $\frac{1}{2}$ cup flour, $\frac{1}{2}$ teaspoon soda, $\frac{1}{4}$ teaspoon salt, 1 cup bran, $\frac{1}{2}$ cup milk, $2\frac{1}{2}$ tablespoons molasses, 1 egg. Mix and sift flour, soda and salt; add bran, molasses and milk; then egg well beaten. Bake in hot buttered gem pans.

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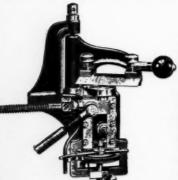
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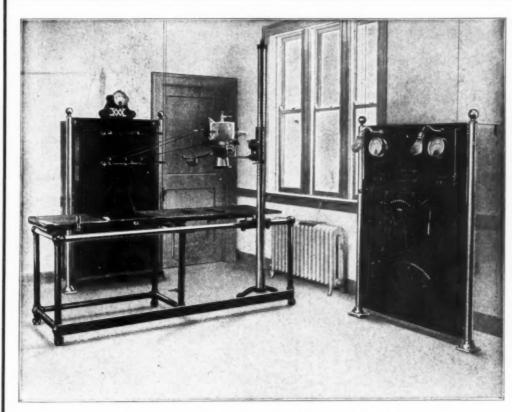
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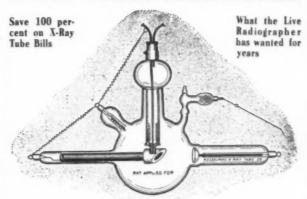
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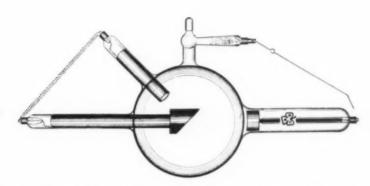
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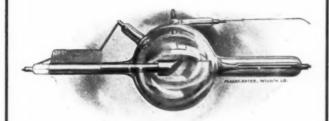
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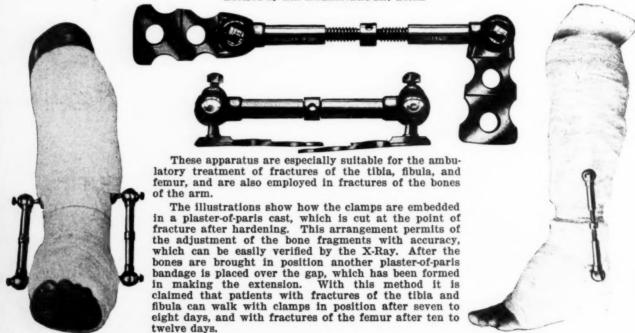
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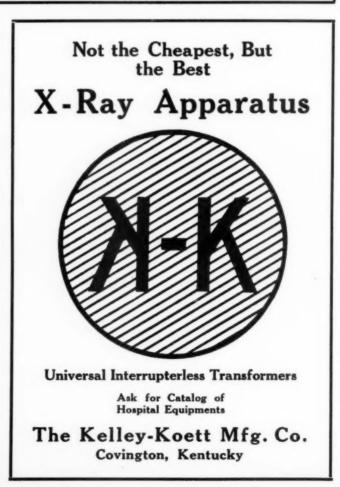


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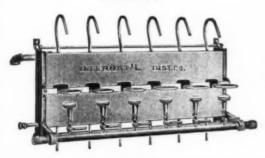
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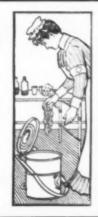
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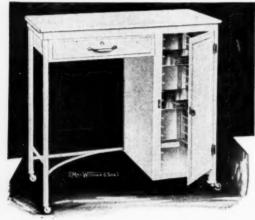
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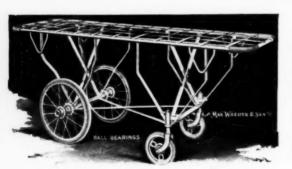
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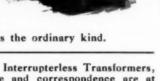


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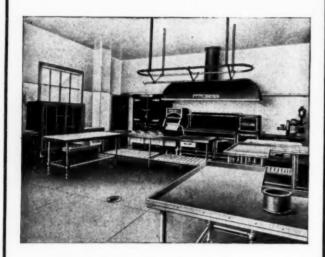
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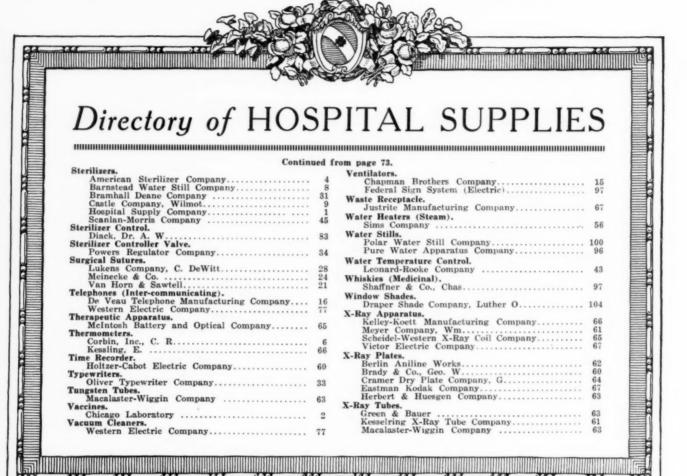
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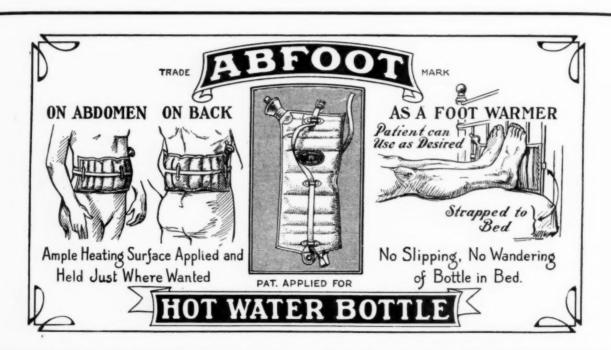
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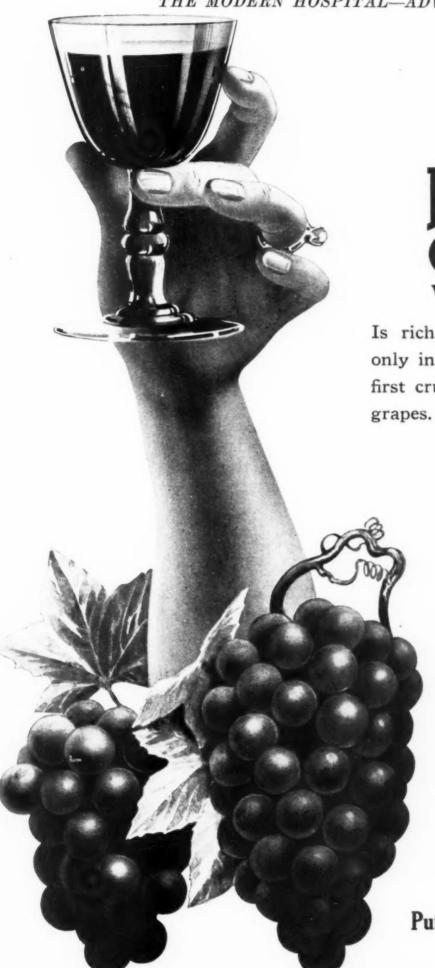
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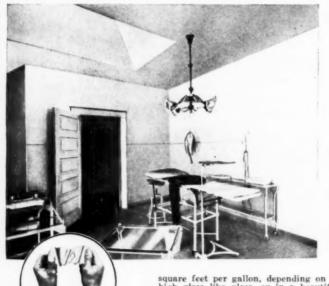
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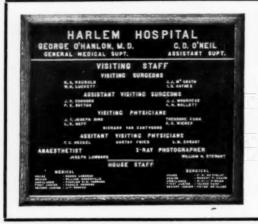
SPRAY-WAX

used occasionally, renews finish; removes scratches and heel-marks; leaves no gummy or slippery effect

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Because they serve best the purpose of directories, bulletin and announcement boards-

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Laid half inch thick bonds direct to cement, concrete, wood, iron, and marble. Will not crack. An ideal flooring for hospitals, churches, and all public buildings.

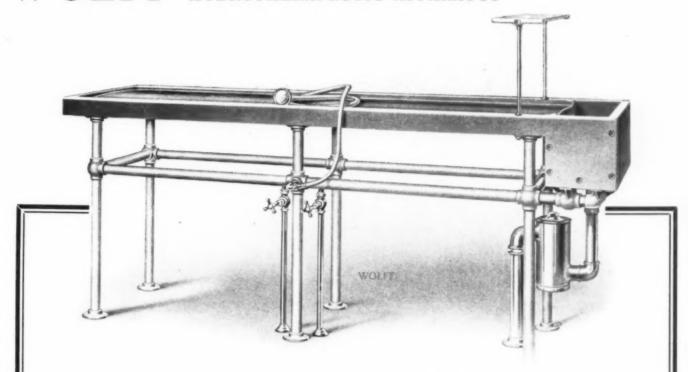
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WOLFF HOSPITAL PLUMBING AND HYDROTHERAPEUTIC APPARATUS



In handling every Plumbing Problem for the

Hospital, Sanatorium, Asylum, Medical College and Hydropathic Institute

You have the assistance of men who know, a staff by which the high standard of the Wolff Company is maintained.

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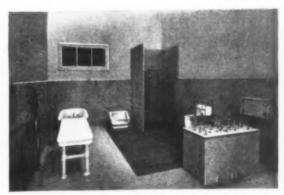
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We are agents for the LEONARD THERMOSTAT VALVE, and are prepared to furnish it with any of our fixtures with which its use is suitable.

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Phenixlite is remarkably well qualified for hospital lighting or for use in any place where a large volume of efficient and perfectly diffused light is required. It emits a wonderfully mild, soft, kindly light, which flows from its large surface like daylight from the sky. The silvery white lower reflector directs the tungsten light upward, and the upper 20-inch reflector redirects it downward and outward with but little waste. No lamp filament is visible and it is absolutely glareless. It is practically dust-proof, and maintains its initial high efficiency. It is simple, economical, strong, and easy to keep clean. Entirely independent of ceiling conditions. It is really worth investigating.

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Post-Hospital Treatment For Women Who Need Conditioning

Even after the most successful hospital treatment, many women require systematic physical training if permanent benefits are to be secured.

Remedial exercises for near-neurasthenics must be of a character that will arouse sufficient mental interest and incentive to dispel the languor and indifference usual to this class of patients. It is easy to tell these patients to take plenty of exercise and be careful in their diet, but it is difficult to induce them to follow this simple prescription.

Permanent results can be attained only when the patient is taught how to stand correctly, how to breathe and how to exercise normally. Every hospital practitioner has cases which would be greatly benefited by a scientific, individualized, personally-directed course of proper exercise, breathing, bathing and diet. My exercise will materially help your cases of chronic Constipation, Indigestion, Anemia, Neurasthenia, Weakened Heart Muscles, Undeveloped Lungs, Poor Circulation, and will increase the resistance, by building up and strengthening the physical and nervous system.

PHYSICIANS APPROVE OF MY WORK when they know its character; those who fully understand it frankly welcome my help for certain classes of their patients. The mental interest and incentive developed by the individual lessons dispel that indifference

sons dispel that indifference which physicians often find hard to overcome in some patients.

It is my custom to study each pupil's special requirements, and prescribe for her individually. I give no promiscuous exercise, but direct each woman according to her needs and her strength. I have spent years in the study of anatomy and physiology, and accept no cases where pronounced pathological conditions are present, as I know the possibilities of my work and I realize its limitations.

In many cases I insist that the pupil have the consent and advice of her physician; in others, a regular weekly examination by physicians is required.

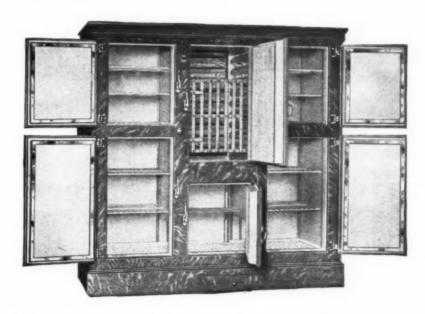
For 12 years I gave personal instruction to women before attempting instruction by mail.



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Miss Cocroft has perhaps had a wider experience than any woman in America in prescribing remedial exercises for women.



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The utmost in refrigerating equipment. It must be scientifically constructed, of highest efficiency and sanitary always. That's why, after the severest tests and most rigid investigations, the

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are selected by up-to-date Hospitals everywhere. A few of these hospitals follow:

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Also used in the United States Pure Food Laboratories, United States Senate Restaurants and other Government Buildings.

The McCray patented system of air circulation keeps a clear, pure, cold current of air constantly passing over contents of refrigerator, and automatically removes all odors and impurities. May be arranged for either ice or mechanical refrigeration, and, if desired, are built to order to accommodate individual hospital needs. We invite architects planning hospital buildings to confer with us.

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The Antiseptic Wall Treatment



IT IS THE LAST WORD IN WALL COVERING

Durable—Washable—Economical

You do not have to re-coat after using SHELLKOTE, but simply wash, as you have a permanent finish.

SHELLKOTE has immense covering capacity—800 square feet to the gallon. Old finish does not have to be removed—SHELLKOTE covers perfectly.

We sell directly to hospitals and institutions, and not through middlemen — that takes off one profit and two handlings, and the paint costs you much less.

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STORM Hospital Elevators and Dumb-Waiters are Durable, Easily Operated, Safe

Also they are designed for convenience, good appearances, and economy.

The name of STORM for twenty-five years has stood for the best in workmanship, conscientious service, and fair dealing.

The line of STORM comprises Dumb-Waiters and Hand Elevators of every description. We shall be glad to furnish estimates on work of any size anywhere in the world. Send for illustrated catalogue.

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BOHN SYPHON REFRIGERATORS

Are indorsed by leading physicians the country over for their many sanitary features.

Linings of pure white porcelain enamel.

Heavily insulated with Flaxlinum refrigerator car insulation.

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DID YOU EVER REALIZE

that your only means of knowing if your dressings have been properly sterilized is whether you get an infected patient?

A sort of human vivisection, as it were.

It's a silly procedure, and expensive, too.

The proper thing to do is to know whether your dressings have been sterilized before they go to the operating room.

The melted tablet of the Sterilizer Control—Diack will give you this knowledge.

Sample and literature on request

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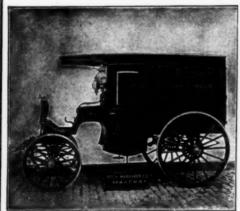
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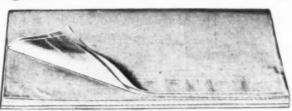
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Because of its lasting qualities, it will prove the most economical hospital sheet. Made from selected pure white cotton yarn, closely woven. A smooth, even fabric that will not readily catch or tear in laundering. Launders perfectly. Hemmed and ironed ready for use. Sheets are torn, not cut; therefore will not unravel.

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It is filled with just the right quantity and quality of feathers to properly support the patient's head and induce sleep. The feathers are specially selected to withstand the hard usage pillows naturally receive in a Hospital. They are thoroughly cleansed, sterilized, and deodorized. In a word, are

ABSOLUTELY SANITARY

The ticking is the best, and is selected on account of its waterproof qualities, thereby protecting the feathers from medicines, etc., which may come in contact with the pillow.

MADE WITH AND WITHOUT REMOVABLE TICKING ASK US ABOUT THIS REMOVABLE TICKING

CHAS. EMMERICH & CO.

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H-O Oatmeal is cooked under high steam pressure for over two hours before it is rolled into flakes. The walls of the starch cells are broken down and some of the starch is converted into dextrine.

As a result, H-O is the only oatmeal which is ready for thorough assimilation after 20 minutes' cooking in the hospital kitchen.

This quick cooking and the fact that H-O porridge bulks larger than that made from other oatmeals make H-O the most economical.



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THE STANDARD NATURAL ALKALINE WATER OF THE WORLD

So-called Vichy in syphon, bulk or drawn from the soda fountain, is

NOT VICHY

Remember-and always use the name

CÉLESTINS



Infantile Indigestion

in most instances is traceable either to contamination of the food or to excess of proteid (casein), leading to the formation of large indigestible curds. The essential gravity of even the simplest attack of indigestion in infancy makes it imperative on the slightest evidence of digestive disturbance to place the little one on a diet not only of absolute purity, but one specifically adapted to the correction of contributory factors. Such a diet is provided by **Trommer Malt Soup**, as prepared easily, conveniently, and economically by

TROMMER DIASTASIC MALT EXTRACT

Broad, comprehensive studies, supplemented by extensive clinical experience, have shown conclusively that **Trommer Malt Soup** is the most effective substitute for mother's milk. Not only does it offer an absolutely pure food, highly nutritious and easily adaptable to each infant's digestive powers and bodily needs, but owing to its diastasic and carbohydrate content its use assures the formation of small curds and consequent freedom from digestive irritation.

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Simple to prepare, easily modified, and freely taken by the youngest infant, Trommer Malt Soup affords a solution of the infant feeding problem from every standpoint of safety, efficiency, convenience, and economy.

Send for interesting little booklet giving Trommer Malt Soup formulas for different periods.

THE TROMMER COMPANY

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Buried for Twelve Days THE SAFE-CABINET

withstood the test of fire and the impact and pressure of tons of debris. This letter briefly tells the story.

Milwaukee, November 14, 1913.

Gentlemen: The three SAFE-CABINETS manufactured by THE SAFE-CABINET COMPANY, of Marietta, Ohio, in which we kept our valuable books and records, went through the recent disastrous fire which completely destroyed our building, and were taken from the ruins with all our books and papers in perfect condition. Two of the cabinets were buried under many tons of debris for twelve days.

Yours truly,
GOODYEAR RUBBER COMPANY.
Per James Suydam, Mgr.



Protect the Hospital Records in THE SAFE-CABINET. It can be equipped with any form of filing device—made in eleven sizes. The 1913 model bears the Underwriters' label of endorsement and inspection.

THE SAFE-CABINET COMPANY

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THE SAFE-CABINET

AND ALL OTHER

STEEL OFFICE EQUIPMENTS



that pass through my hands are recommended for their particular fitness for the work in the office of the modern hospital.

I have studied hospital requirements to determine positively what will give the most SERVICE for the least money.

This SERVICE includes

Fire Protection
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You can get it all. Write for the data.

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Specialist in Steel Office Equipment for the Medical Profession

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THE manufacture of malt preparations for medicinal use is a highly specialized professional work, and is successfully accomplished only under the direction of competent chemists. While in some respects similar to the brewing of beer, there are vital differences both in the materials which enter into these products and the processes of manufacture.



Malt Sutrine

the food-tonic

is the recognized standard of medicinal malt preparations of its class. The materials used in its manufacture are specially selected and safeguarded. Only the choicest Barley-malt and Saazer hops are used, and the finished product contains all of the soluble substances of these two materials.

Malt Nutrine is a perfect malt preparation, and should not be confused with cheap dark beers, many of which are represented to be medicinal malt products.

For the hospital patient, physician, or nurse who is in need of a refreshing, appetizing,

nourishing and mildly stimulating liquid food, *Malt Nutrine* is most serviceable. It is low in alcohol strength (less than 2%), but high in food value (14% of the solids extracted from malt and hops).

Pronounced by the U. S. Internal Revenue Department a PURE MALT PRODUCT, and not an Alcoholic Beverage

Sold by all druggists

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We center every effort of our organization on the production of Metal Beds, Springs, and Hospital Furniture for general institutions. Will be pleased to quote prices on application.



Pillars, 15/16 in. Filling, 1/2 and 11/16 in. Head, 48 in.

Sizes: 3 ft., 3 ft. 6 in., 4 ft., and 4 ft. 6 in. Fabric, Heavy double weave. Ribs, 1¼ in. apart.

Weight (6 ft. 3 in. long by 3 ft. wide), 116 lbs.
Height from floor to top of spring, 23½ in.

THREE-PIECE BED ON STEEL ANGLE FRAME—STANDARD RAIL CONNECTION.

Made with Adjustable Back Rest, unless otherwise ordered.

A126-BED SCREEN.

Width, open, 5 ft. Width of wing, 1 ft. 8 in.

Frame made of %-in. tubing.
Curtain rods, ¼ in.
White enamel.

Rubber tips.
Shipping weight, 25 lbs.
In ordering give size desired.

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Manufacturers of High Grade Institution Beds and Hospital Furniture

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ST. LOUIS, MO.

Sanitary Composition Flooring

MANUFACTURED AND LAID BY

ATLAS FLOOR CO.



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Attention to proper conditions for laying, Experienced men-drilled to careful workmanship, Material that wears smooth and does not pit or disintegrate.

INSURE UNIFORMLY GOOD RESULTS

Write for Sample Booklet and Specifications References furnished on application

For the Trained Nurse

Instruction in Massage

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ELECTRO-THERAPY

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Increases Your Earnings

All branches of physiologic therapeutics, including electric light, blue light, dry hot air baths, baking, vibrators, nebulizers, solar and leucodescent lamps, Bier's hyperemia method, galvanic, faradic, static electricity, high frequency, sinusoidal currents, x-ray, Dr. Schnee's fourcell bath, Bachelet magnetic wave, Nauheim baths and Schott exercises. Medico-Mechanical Zander Gymnasium.

Theoretical and practical instruction. Thorough courses in Anatomy, Physiology, and Pathology. Abundant clinical material. Students attend several city hospitals. Diploma. Particulars and illustrated booklet upon request.

Duration of Term Four Months

Duration of Term Four Months Summer Class opens July 6, 1914 Fall Classes open September 29 and November 18, 1914

Pennsylvania Orthopaedic Institute and School of Mechano-Therapy (Incorporated)

Max J. Walter, M. D., Superintendent

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Philadelphia Pennsylvania



DIMAZON OINTMENT

Dear Doctor:-

Dimazon ointment has been thoroughly tested by the European profession. Their opinions, which we quote below, were published in different medical journals, and clearly illustrate its great therapeutic value.

We trust that after reading the reports of your European colleagues you will be interested enough to give Dimazon ointment a trial.

You are cordially invited to make use, for this purpose, of our offer for free samples.

EXTRACTS FROM REPORT PUBLISHED IN THE THERAPEUTISCHE MONATSHEFTE, MAY 1913. By Prof. Dr. BERNHARD BENDIX



Before using Dimazon Ointment.

Illustration.—Severe ecze-ma which appeared the third week after birth; although treated with various oint-ments for 4 months it had not improved.

Oct. 17th. — Admitted at clinic; age, 4 months and 3 weeks. Most careful attention was given to the usual treatment for eczema — in-cluding administration of dietetic measures-for about six weeks, with no results.

December 8th. - Application of Dimazon. Early improvement was visible and cure effected within 2 weeks. Second photograph taken December 19th.

March 24, 1913.—The child has been well up to this date, or for more than ten weeks.



After using Dimazon Ointment.

THERAPEUTIC MEMORANDA FROM LATEST LITERATURE

- 1. DR. BANTLIN, Polyklinik of Professor Dr. Koeppe, Giessen. Recommends ointment for treatment of eczema in children accompanied by exudative diathesis.
- DR. RETZLAFF, of the surgical ward of the Magdeburg-Sudenburg City Hospital. Chief Physician, Pro-fessor Dr. Wendel.
 Secured excellent results in treating ulcus cruris, in connection with varicose veins, ulcers after specific diseases and cauterizations.
- 3. DR. DECKER, of the surgical ward of the St. Vincenz Hospital at Cologne, Professor Dr. Dillmann. Applied ointment with surprising success for curing superficial wounds, simple injuries, burns and ulcera cruris, but also in connection with large wound surfaces (removal of the mamma).
- PROF. DR. B. BENDIX, Directing Physician of the Charlottenburg Infant Hospital, Berlin-Charlottenburg.
 Made experiments and realized permanently successful results in cases of very severe chronic forms of eczema of face and head.
- 5. DR. TH. HOFFA, Director of the Infant Hospital, Barmen. Secured particularly surprising effects in the epithelization in a case of erythrodermia universalis. Also in luetic rhagades of the palm and sole of the foot, rapid formation of new epidermis took place.
- 6. DR. HAAS, of the Ophthalmological Ward of the General Hospital at Viersen. Treated eczematous affections of the eye and recommends the ointment as a valuable addition for the therapy of these affections.
- 7. DR. R. POLLAND, lecturer at the Dermatological Hospital of Graz University. Witnessed surprisingly rapid formation of epithelium in cases of very severe burns.

The above quoted statements appeared in the following Medical Journals:

- Dr. Bantlin, München, Mediz. Wochenschrift, No. 39, 1912.
 Dr. O. Retzlaff, Deutsche Mediz. Wochenschrift, No. 42, 1912.
 Dr. C. Decker, Mediz. Klinik, Berlin, No. 49, 1912.
 Prof. Dr. Bendix, Therapeutische Monatshefte, May, 1913.
 Dr. Th. Hoffa, Deutsche Mediz. Wochenschrift, No. 25, 1913.
 Dr. Haas, Wochenschrift für Therapie und Hygiene des Auges, No. 40, 1913.
 Dr. R. Polland, Wiener Mediz. Wochenschrift, No. 38, 1913.

Complete clinical reports and free samples of Dimazon ointment are at the disposal of the Medical Profession.

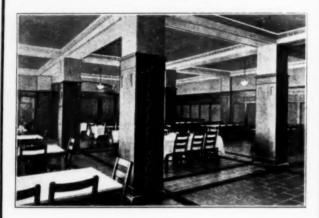
HEILKRAFT MEDICAL CO., Boston, Mass.

In old or new construction

Asbestone Sanitary Flooring

fills a long-felt want

Your floor needs to be carefully and promptly attended to by us. We not only renovate old wood and concrete floors, but are placing thousands of feet of Asbestone in new hospitals every year.



Its elasticity and resiliency make it a most agreeable and comfortable floor to walk upon-in fact, its many desirable features cannot be enumerated here because of limited space.

It is laid in many color combinations, creating pleasing and artistic effects, yet leaving no seams, as it seals itself hermetically.

Write us for information as to the nearest point where our material can be seen in your locality. Investigate personally and convince yourself. We place our material on merit only, and take all responsibility in our guarantee.

Estimates, samples and information furnished on request.

Franklyn R. Muller & Co.

Sole Manufacturers of ASBESTONE—Best by Test Waukegan, Illinois



Rubber Goods for Hospital Service

We manufacture a complete line of Surgical Rubber Goods that is used extensively in institutions where none but the best rubber articles are good enough. The uniformly high quality of raw material, the scientific methods of manufacture, and the extreme care and study given their construction make Faultless Rubber Goods the most adaptable and serviceable that can be used. These articles, in particular, are well worthy of your attention:

Ice Bags and Water Caps

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Ice and Water Caps
Air Pillows Fountain Syringes
Catheters Infant Syringes
Colon Tubes Ear and Ulcer Syringes
Rectal Tubes Douches
Stomach Tubes
Operating Cushions
Rubber Aprons
Breast Pumps
Rubber Blankets and Sheeting
Rubber Tubing for all Purposes

"Faultless" Surgeons' Rubber Gloves are made for service. Sterilization does not injure them. You owe it to your institution and to your surgical staff to give "Faultless" Gloves a test. Trial orders promptly executed at quantity prices.

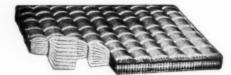
The Faultless Rubber Company

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Each compartment of the

DIXIE NoTUFT Compartment Mattress

is separately filled. The amount of filling for each is weighed. Those compartments which have the most wear contain the most filling. It is scientifically built.



WILL NOT SPREAD

NO DIRT POCKETS NO TUFT TO PULL OUT

The Ideal Hospital Mattress

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Pearl and Prospect Streets
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The "Mercy-Rest"

A Perfect Head-Rest



A modern device that meets all conditions and fills every requirement of a "PERFECT REST"

The "MERCY-REST" is specially made for brass or iron beds, and is easily attached to either, and as readily detached by any one of ordinary skill, without in any manner marring or injuring the bed.

when the "MERCY-REST" is properly attached to the bed it needs no further attention. It is always out of the way and entirely out of sight when not in use; but when in use and exposed the "MERCY-REST" adds to, rather than detracts (as do other "Rests") from the appearance of the bed.

THE MERCY HEAD-REST COMPANY

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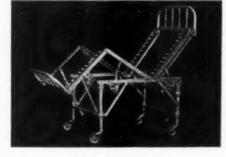
The Way Chair Bed



Can be adjusted to any desired position.

Can be used as a wheelchair.

Used as regular bed



Price, complete with strictly high-grade cotton-felt mattress \$30.00

With hair mattress \$35.00

F. O. B. Factory

The Fowler position

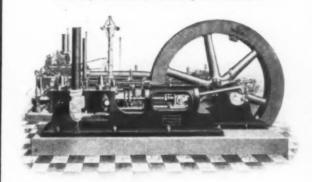
MINNEAPOLIS BEDDING CO., Manufacturers

KROESCHELL

Carbonic Anhydride

SYSTEM

For Hospital Refrigeration Safe, Economical, Efficient



2 30-Ton Engine Driven Refrigerating Machines Installed at the Sea View Hospital, New York City

We have made a specialty of hospital equipment, and refer you to the following partial list of hospitals equipped with the Kroeschell Carbonic System of refrigeration:

Cook County Infirmary	Oak Forest, Ill.
Michael Reese Hospital	Chicago, Ill.
Presbyterian Hospital	Chicago, Ill.
St. Luke's Hospital	Chicago, Ill.
Chicago Home for Incurables	Chicago, Ill.
King's Home for Old Men	Chicago, Ill.
Annie Durand Hospital	Chicago, Ill.
Chicago Municipal Tuberculosis	
Sanitarium	
Henrotin Memorial Hospital	Chicago, Ill.
German Hospital	Chicago, Ill.
Indiana Steel Co.'s Hospital	Gary, Ind.
U. S. Naval Training Station	N. Chicago, Ill.
Grace Hospital	Detroit, Mich.
Harper Hospital	Detroit, Mich.
Sea View Hospital	New York, N. Y.
Cook County Hospital	Chicago, Ill.
Detroit General Hospital	Detroit, Mich.

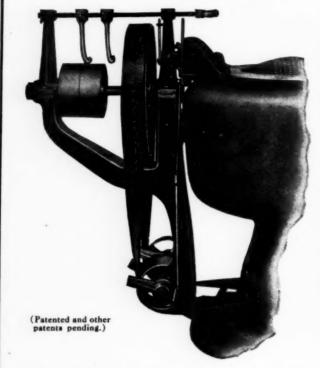
You can profit by our experience. Write to us for estimate, information, and catalogue.

Kroeschell Bros. Ice Mach. Co.

Main Office and Works:

450 West Erie Street, Chicago, Ill.

30 Church Street, New York City, N. Y.



Safety First

IN equipping the modern hospital laundry, the first consideration is the protection of its workers against the results of possible negligence and carelessness.

We build more safety devices than any other laundry machinery manufacturers in the world. The illustration is of a typical one, the Troy "Fool-Pruf" Extractor Cover, Type "B".

Troy Laundry Machinery Co., Ltd.
NEW YORK CHICAGO SAN FRANCISCO



Elbow Type - For Clinic Lavatory

Niedecken Mixer

Paten ed

The Perfect Mixing

AND

Anti-Scalding Valve

For Shower, Lavatory Bath, Shampoo, Etc.

No Cams No Springs

Removable Bronze Seats

Hoffmann & Billings Manufacturing Company

MILWAUKEE. WISCONSIN

Write For Bulletin M H 5

For Modern Hospitals

Inside walls of unusual strength, toughness, and durability—forming a perfect base for enameling—and which, when enameled, can be sterilized without disintegration, are possible by the

New University Hospital Augusta, Ga.

Architect, G. Lloyd Preacher



Best Bros. Keene's Cement

The Plaster That Stands Hard Knocks

For twenty years this has been the premier plaster of America for buildings built for permanence. It is particularly desirable for hospitals, as it is much closer in texture than other plasters and contains no unsanitary free chemicals.

Folder on request



The Best Bros. Keene's Cement Company

Department O, Medicine Lodge, Kansas

New York

Chicago

Best Bros. Keene's Cement Used Throughout for Plastering These Buildings, 1914





The Hospital Special

PLYMOUTH ROCKER

(Puritan Mission)

Chair Comfort for Hospital Patients

A high-grade Rocking Chair, perfectly balanced, rocking without exertion, and allowing the patient perfect comfort and rest. It has form-fitting shaped back, high and roomy, allowing the use of pillows: a spring seat of special construction, covered with the best soft Spanish leather—sanitary—the seat being removable for fumigating, cleaning, or re-covering. The Chair is of unusual solidity because of its patent pinlocked construction (pins interlocking—the joints will not loosen).

The note Rocking Chair designed senecially for Hospital use.

The only Rocking Chair designed especially for Hospital use.

Write for Special Introductory Offer to Hospitals.

PLYMOUTH CHAIR COMPANY PLYMOUTH, WIS.

FLOOR YOUR HOSPITAL

With

Sanitary Composition Flooring



Lays in one continuous piece without cracks or crevices to collect dirt and germs.

Smooth, warm to the touch, almost noiseless, easy to walk or stand on.

Germ-proof, fire-proof, and water-proof. Wears twice as long as a wood floor. Does not wear dusty. Applies directly over any old or new floor. Does not crack or chip. Easy to keep clean.

Write us for full particulars and Samples

Sanitary Composition Floor Company

99 West Onondaga Street SYRACUSE, NEW YORK



Toronto General Hospital, Toronto, Ontario

ONE OF THE MOST COMPLETELY EQUIPPED HOSPITALS IN AMERICA

LEVISON SILENT CALL NURSE SIGNAL SYSTEM

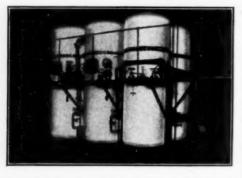
of 1,500 calls installed in this institution

Insures positive service to patients—Increases efficiency of nurses—Reduces operating expense—Safe—Operating voltage, 10 volts—Operates without noise.

THE CHICAGO SIGNAL COMPANY

Send for catalogue describing various systems

411 South Jefferson Street, Chicago



THE HODGES MULTI-STILL is offered as a part of a complete Hospital Equipment on two counts: THE EXQUISITE QUALITY OF ITS DISTILLATE, making it not merely an absolutely pure and sterilized water for medicinal and surgical use, but a most acceptable table water as well, which last is a far more difficult accomplishment; AND A COST SO LOW—2½ cents to 5 cents PER TON—that its softness and high solvent properties can be taken advantage of in the broadest way in bathing of the person, laundering, kitchen service, cleansing floors and walls, etc. In fact, distilled water may now substitute the more or less questionable raw water in every utility, even the most commonplace.

raw water in every utility, even the most commonplace.

Our Bulletins D-1, G-3, and H-1 establish the reasons for these facts and make clear the nature of the improvements of Mr. Horace F. Hodges, which have made them possible.

It will be correctly judged from the accompanying illustration that the Hodges Multi-Still is not an instrument for the operating room, but a part of the plant—its output being in terms of thousands of gallons per day. For table, medicinal, and surgical use the distillate will be distributed in bottles or carboys; for general use it will be pumped to a service tank and thence distributed by gravity through the existing pipe system of the buildings. The cut is from a 4-effect Still, having a capacity of 30,000 gallons in 24 hours.

Nevertheless, we make a small special double-effect still in three sizes for use in the operating room or elsewhere, or for small hospitals. This is described in Bulletin S-S. Capaci-

It only remains to say that the Engineering Staff of this company includes graduates of achieved standing and experience from such Professional Schools as the Massachusetts Institute of Technology and the Rensselaer Polytechnic Institute. Water distillation has now reached the position of a science. Technical problems submitted to us are dealt with on this plane and results guaranteed.

PURE WATER APPARATUS COMPANY

61 Broadway NEW YORK CITY, N. Y.

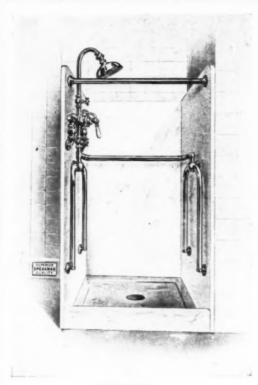


FIGURE 1014

A good type of Needle Shower for Hospitals and Sani-riums. An attendant can operate the Valves from from

SPEAKMAN SHOWERS

and

Hospital Fixtures



equipped with the Speakman Mixing Valve are particularly suitable for hospital use because of their stability, control, and the exact precision by which they supply water mixed to the proper temperature. Our Mixing Valve, besides being made for Showers as shown above, is also made in Elbow, Knee, and Foot Action types for clinic sinks.

Catalogs sent on request

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W. E. GILCHRIST, Pacific Coast Representative, Monadnock Building, San Francisco

OUALITY WHISKIES

HOSPITAL USE

We make a specialty of supplying hospitals, sanatoriums, and allied institutions with particularly pure Whiskies for medicinal purposes.

Prices submitted on request.

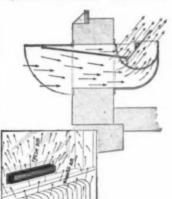
CHAS. SHAFFNER & CO.

23 North Franklin Street CHICAGO, ILL.

The Packer-Rekcap Ventilator

2x12-inch Size Delivers

5.600 Cubic Feet of Air Per Hour



Opinion of the CHICAGO FRESH AIR HOSPITAL

ice-President,
A. J. Ochmer, M. D. ical Superintendent, Ethan A. Gray, M. D.

Rekcap Ventilators in-"Rekcap Ventilators in-stalled just prior to re-cent cold snap have been most satisfactory and are superior to any device we have ever tried. They are espe-cially useful in the high winds which prevailed in this exposed situation. (Signed)

ETHAN A. GRAY, M. D.

OFFICIAL TEST

SHOWS

46 to 350% GREATER CAPACITY

THAN OTHER DEVICES

For Details of Test, Prices, or Further Data Address

FEDERAL SIGN SYSTEM (Electric)

Lake and Desplaines Streets CHICAGO

ACCEPTABLE FOODS FOR HOSPITAL PATIENTS

THE problem of feeding the sick embraces something more than the mere consideration of measured food values computed in calories. The appetite of the ill and convalescent must be ministered to and the palate pleased in the interest of the patient's welfare. "To taste good is Nature's stamp of approval," and the taste and flavor of food are important factors to the hospital patient. Hospital dieticians who serve our WASHINGTON WHEAT FLAKES and WASHINGTON CORN CRISPS in their institutions regard it a good investment to buy QUALITY FOODS.

No advance in dietetics during recent years is more important than our flaking process used in the manufacture of these foods. This process involves these main points:

1st. Thorough steam cooking of the grain until the starch granules burst their cellulose walls and are partly converted into sugar.

2d. Rolling the steam-cooked grain into flakes, thin as fine paper, and flavoring.

3d. Baking at high temperature in special ovens until each flake is scientifically toasted to a crisp brown.

4th. Packing mechanically in air-tight packages.

Washington Wheat Flakes-The Whole Wheat Food



It is generally conceded by authorities on dietetics that WHOLE WHEAT is an ideal food to serve either as a foundation or as an auxiliary of a healthful diet. In its ordinary form, however, it is not acceptable to all persons. WASHINGTON WHEAT FLAKES is made from the very best quality of selected Pacific Coast white wheat, with the addition of pure cane sugar and fruit juices, which give this food a delicious and appetizing flavor.

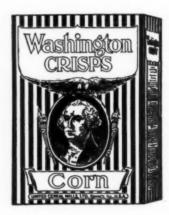
The flakes contain the full food value of whole wheat, presenting this unequaled cereal in easily digestible form. It offers an abundance of carbohydrates, the full wheat value of protein and fat, the organic salts of wheat (phosphates, nitrates, etc.), and enough of the cellulose to tone the weakened peristaltic activity following confinement during illness. Besides being the most palatable of cereal products, it is a food

of physiologic merit. It will not only whet the appetite of your convalescing patient, but it furnishes material for tissue repair.

Washington Corn Crisps

A toasted corn food of delicious flavor. Made from the hard white hearts of carefully selected Northern corn. A product to be given preference wherever a corn-flake food is desired. It costs no more than the small package, and contains half as much again as many of the cereals on the market today. Acquaint yourself with the delicious and appetizing flavor of this food.

If you do not know these foods, we believe that it will be of advantage to your institution and its patients to send for a trial quantity, which we will gladly send free, express prepaid.



UNITED CEREAL MILLS, Limited

CHICAGO, ILL.

SHOCK ABSORBERS

FOR

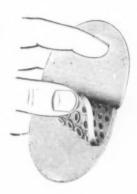
Hospital Physicians, Nurses, and Patients



Foster Tred-Air Heel Cushion

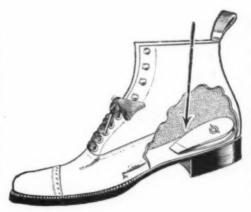
Worn Inside the Shoe

Is a springy, pneumatic cushion that slips inside the shoe under the heel, and prevents the usual fatigue occasioned by walking or standing on floors of hardwood, tile, or concrete. The cushion is pneumatic, hygienic, and quickly adjusted.



Absorbs All the Jar and Doubles One's Walking Powers

These pneumatic cushions placed inside the shoe, under the heel, will absorb the shocks, jolts, and jars which, when not taken up in this manner, soon produce tired feet, fatigue, and backache.



These pneumatic cushions are a boon to the hospital physicians, nurses, and patients. They give relief to the physician, increase the efficiency of the nurse, and are a great aid to the convalescent patient.

The Arrow in the Illustration Shows the Pneumatic Cushion in Position in the Shoe

At your shoe dealer's or repair shop, or we will send a sample pair for 25 cents and your dealer's name. Mention shoe size

FOSTER RUBBER COMPANY

105 Federal Street, BOSTON, MASS.

Originators and Patentees of the Foster Friction Plug, which Prevents Slipping

ALL ABOARD FOR THE CONVENTION

of the

American Hospital Association

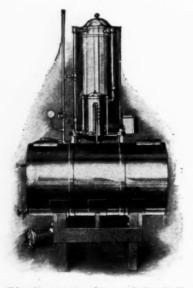
ST. PAUL, MINN., AUGUST 25 TO 28, 1914

THE OFFICIAL SPECIAL TRAIN will leave Chicago at 11:55 P. M., Sunday, August 23rd, via the Burlington Route, and run over their Mississippi River Scenic Line — "Where Nature smiles three hundred miles."

If you have not already reserved accommodation, or if you desire further information, please communicate with Asa Bacon, Superintendent, Presbyterian Hospital, Chicago, or A. J. Puhl, General Agent, Passenger Department, 141 South Clark Street, Chicago. Telephones—Randolph 3117; Automatic 589-860.

Polar Distilled Water

Recommended for Hospitals



The illustration shows a Polar Still with Storage Tank

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It provides a ready supply of water that is free from all mineral or organic matter, at the minimum of expense and trouble.

During the process of purification the water does not come in contact with anything but pure block tin. The Still is made of copper, with an outside finish of nickel if desired. Many capacities, for practically any requirement.

The operation is entirely automatic, requiring no skilled attention whatever.

By cooking the raw water before it enters the boiling chamber for evaporation, those gases that form the flat or insipid taste common to ordinary condensed steam are removed, resulting in a thoroughly palatable drinking water, guaranteed equal to any of the best known table waters in this respect. This gas removing feature makes a better distillate for particular requirements.

Recommended for hospital purposes by high authorities.

POLAR WATER STILL CO.

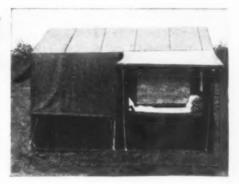
2 North Michigan Avenue CHICAGO

HOUSE YOUR "FRESH AIR" PATIENTS



KENYON SANITARIUM HOUSE

Weatherproof Waterproof Well Ventilated Convenient



Every physician who has seen the house illustrated above has enthusiastically endorsed its creosoted frame, floor and cover that protect occupants against dampness and germs, its wide screen openings that admit a constant supply of pure air, its awning extensions that provide perfect shade, its easily operated storm curtain, its screen ventilators that admit plenty of air even when the storm cur-

tains are closed, its size which allows plenty of room for bed, dressing table, a couple of chairs, places for wearing apparel, etc.

The Kenyon House can be put up or taken down by one man in a couple of hours. The Kenyon House ward is the most popular ward in many Sanitariums. Carried in stock in all sizes ranging in price upward from (7'x9'), \$62.50, according to size.

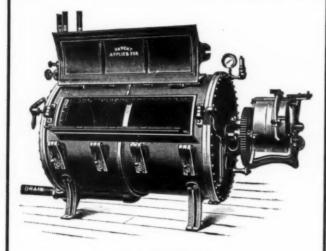
Complete catalogue and price list on request

THE R. L. KENYON COMPANY

800 Albert Street

Waukesha, Wisconsin

STERILIZING WASHER



Our specialty is

Laundry Machinery and Appliances

For the Modern Hospital or Institution

EMPIRE LAUNDRY MACHINERY CO.

73-75 Pearl Street BOSTON, MASS.

"LOOKOUT" ABSORBENT COTTON "LOOKOUT" GAUZE AND BANDAGES

The Department of Agriculture of the United States Government has suggested the standardization of surgical dressings.

The progressive surgeon and hospital superintendent should standardize absorbent cotton and surgical gauze without the aid of the Government.

Demand "LOOKOUT" Cotton, "LOOKOUT" Gauze, and "LOOK-OUT" Bandages, and others will have to meet our standard. Our products are free from lime. Test others.

ASEPTIC COTTON PRODUCTS CO.

Chattanooga, Tennessee



No. 969 Bassinette

Tubular steel uprights, mounted on lignum-vitae casters or rubber wheels.

Basket, which is detachable, is constructed of flat steel.

Finished in white enamel.

Made in two sizes:

14 inches wide.

24 inches long.

9 inches deep.

20 inches wide.

36 inches long.

11 inches deep.

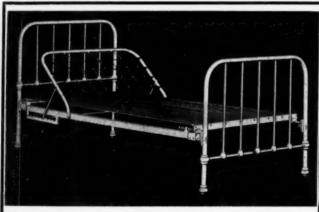
Both 34 inches high.

H. D. Dougherty & Co., Inc.

Makers of High-Grade Aseptic Hospital Furniture, Bedsteads, Bedding and Sundries

Complete Catalog on Request

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Foster "IDEAL" Hospital Beds and Cribs

Used in Many Institutions

Are made strong and heavy. Three-piece construction; head, foot and springs. Springs are made with woven wire, National or Link fabric, and with angle sides or tubular sides. Malleable corner connections assure strength, rigidity and convenience in setting up.

we show many patterns in our catalogue and make special beds to any specifications. Write for a copy of our special institution bed catalogue. No. 210 Hospital Bedstead with Headrest

Tubing 1 1/16 inches; cross rods 1/16 inch. Upright spindles 1/8 inch. Heavy angle frame, woven wire spring with spring stretching device. Regular height, 17 inches from floor. Furnished with or without headrest.

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Hospital and Institution LINENS

Our goods are especially constructed for Institution service, manufactured to meet the most exacting demands in day-in-and-day-out wearing quality, and at prices that are beyond question without precedent for value given.

We offer special inducements to Hospitals and Institutions on the following goods:

TABLE AND BED LINENS, SHEETS, PILLOW CASES, BLANKETS, COMFORTABLES, QUILTS, CRASHES, TOWELS, TOWELING, ETC.

Our Extra Heavy Round Thread and Sampson Hospital and Institution Sheets and Pillow Cases are being used by leading hospitals throughout the country with universal satisfaction.

Samples and quotations cheerfully furnished on request

H. W. BAKER LINEN CO.

Dept. H. 41 Worth Street

Phones 5265 Franklin

NEW YORK



"BETTER THAN MARBLE"

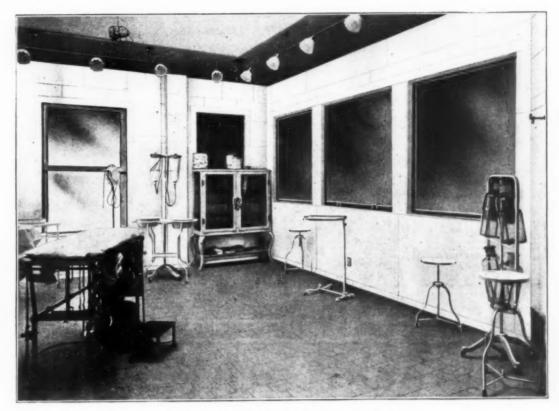


Illustration shows Vitrolite in Use in Operating Room



The Acid Proof Wainscoting for Operating Rooms, Hallways, Bath Rooms, Toilets, Table Tops, Etc.

FOR REFERENCE THE FOLLOWING INSTITUTIONS

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St. Mary's Hospital	Niagara Falls, N. Y.	Hampden HospitalSpringfield, Mass. Los Angeles County HospitalLos Angeles, Cal.
		Evanston Hospital Evanston, Ill.

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GENERAL OFFICES

PARKERSBURG, W. VA.

42 BRANCH INSTALLING SHOPS IN UNITED STATES, CANADA, AND EUROPE

Here Is a Requisite of Every Hospital

DURABLE—SANITARY—GERM-PROOF

Guaranteed

No joints to open—will not split, crack or warp. Impervious to moisture—not affected by uric acid or excrementitious matter. Easily cleaned—alkalies,

strong washing compounds, etc., will not injure this seat. It always looks like new.

The WHALE-BONE-ITE Seat is made of a compact core, covered with a sealed composition of hard rubber,



which is put on in its softened state under a fifty-ton hydraulic pressure, thus anchoring the covering, as it were, to the core, making one solid concrete piece, then vulcanized, which produces the hard surface capable of taking a high-grade polish.

Seats Made for All Bowls. Write Today for Full Particulars
The Brunswick-Balke-Collender Co., Dept. 185, 623-633 S. Wabash Ave., Chicago

Institution Beds

Having Malleable Iron Locks
Guaranteed Unbreakable



Quality First Consideration

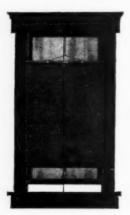
Well constructed and finely finished. Made with either Woven Wire or Link Bottom as preferred. High grade casters

Send for Catalog and Prices

Union Wire Mattress Co.

DRAPER'S "Sanitary" Roller Shades

Our Specialty is ADJUSTABLE Cotton Duck Shades



Our Cotton Duck Shade Cloth Has no Filling

Will Not Check or Crack

Can Be Laundered

We have an AD-JUSTER that will fit any ordinary shade, thereby changing a stationary shade to an adjustable one.

Let us make an estimate on your new and old shades

Luther O. Draper Shade Company

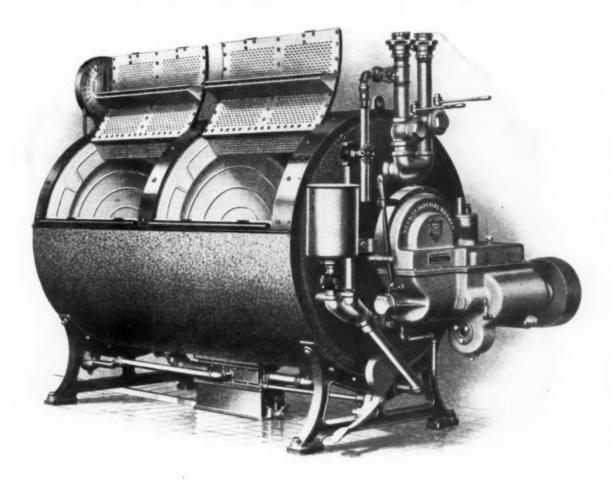
Spiceland, Indiana

Porcelain Enameled

Sanitary Power Washing Machine

For Hospitals and Allied Institutions

Of Large Capacity and High Efficiency, with Single Belt Reversing Drive, Constant Speed Motor or Reversing Motors of all styles



The entire machine is made of metal, and all parts are interchangeable.

It is an indestructible, sanitary machine, expressly built on scientific principles to materially improve washing conditions as to thorough sanitation, as to minimizing the wasteful use of materials, water, floor space, and all repair expenses, and as to the absolute protection of the clothes to be washed.

The porcelain enameled and perforated steel plates of the inner cylinder, with 18,000 perforations, assure absolute cleanliness and meet the most rigid sanitary requirements.

We will be pleased to receive your inquiry

Henrici Laundry Machinery Company Boston, Mass.

INFANTILE CONSTIPATION

is usually traceable to errors of diet. Its relief and subsequent avoidance can be accomplished in the majority of cases therefore by the use of

NESTLÉ'S FOOD

The happy formula of this well-known food—with its well-balanced proportions of proteids, fats, and carbohydrates-and its notable freedom from bacterial or other contamination, not only reduce dietetic tendencies to intestinal stasis and putrefaction, but the presence of a small quantity of maltose as a constant ingredient goes far to insure normal bowel activity.

Another great advantage of Nestle's Food is that it is a complete food in itself, and does not require fresh cow's milk-with its well-known dangers-to make it ready for use. Adding the right amount of water and boiling for one minute are all that is needed to provide a sterile, nutritious food supplying every element essential to bodily growth.



For nearly half a century Nestlé's Food has been serving the medical profession as a safe and effective diet for infants and young children, and its efficiency has been well shown by the thousands of babies it has carried through to healthy, robust childhood.

Samples on Request

NESTLÉ'S FOOD COMPANY

233 Broadway

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The Monash Noiseless System | The Monash Modulating Method of Vacuum Heating

Specially adapted for Hospitals, where Silence, Efficiency and Economy are essential features of the Heating System

Write for Bulletin No. 24

of Vapor Heating

Provides for GRADUATED HEAT day and night. Radiators may be heated $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or the entire surface, as desired.

Requires No Pressure on the Boiler

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Our Engineering Department Is At Your Service

NEW YORK

MONASH-YOUNKER COMPANY

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The Most Rigid Bed on the Market

Note the construction of the corners

3 PINS—ALL IN SERVICE

35 Designs of Hospital Beds Complete Line of Bedding

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F. A. HALL & SONS

44-50 EAST 19th STREET NEW YORK CITY



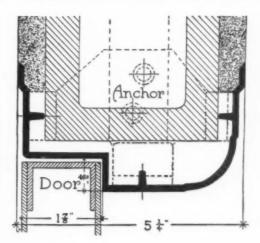


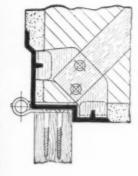
Settle The Door Problem In Your Hospital Once For All

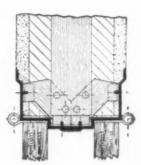
Fire-proof Sanitary Construction is a necessity of our time. What is the use of building fire-proof, germ-proof walls, floors, and partitions if you are to have soft wood, inflammable door frames, full of cracks for germs to lurk in, and creaky, unsightly hinges. If you put in

Braun's Rolled Wrought Iron Welded Door Frames









which are strong, germ-proof, and have invisible hinges, you can forget your doors for forty years. These Door Frames embody the latest ideas of sanitation and are far superior to the channel iron and sheet metal frames now on the market. You will notice from the cut above our method of a movable iron anchor. The frames are put up before the partition walls are built and then the bricking of the tile around this frame makes the frame a part of the wall. It will stand as long as the building and carries the Underwriters' Approval.

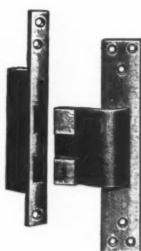
Another feature we wish to call your attention to is our plaster line. You will notice how the side of the iron on our frame is beveled off. When the plaster is put on the wall it is worked behind this bevel and acts like a lock and will never crack away from the frame.

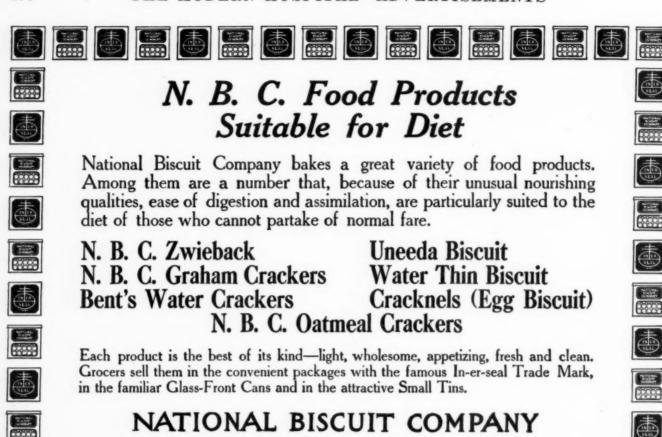
Catalog No. 15 on Rolled Wrought Iron Door Frames Sent on Application

Approved by the UNDERWRITERS' LABORATORIES, Inc., under the direction of the NATIONAL BOARD OF FIRE UNDERWRITERS



609-621 South Paulina Street, Chicago 537-541 West Thirty-fifth Street, New York







Post-Operative Constipation

Yields to internal lubrication with re-refined Russian Mineral Oil, aromatized and known as

Aromatic Liquid Albolene

Controls the bowels perfectly, acting without irritation or causing prostration. Albolene has no cathartic or medicinal action, but acts purely mechanically.

The only laxative that is never contraindicated.

Samples supplied free to hospitals for clinical trial.



McKESSON & ROBBINS

NEW YORK

MOUTH HYGIENE

The nearest approach to perfect cleanliness of the mouth and teeth is obtained by the use of

CALOX

The Oxygen Tooth Powder

A necessity for surgeon, nurse and patient. Keeps the mouth aseptic, and is much liked for the refreshing sense of cleanliness and purity it leaves in the mouth, due to the tonic effects of the released oxygen.

Sold by all druggists

Samples for trial by the medical and nursing staff of any hospital sent on request.



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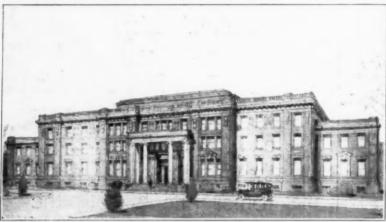
NEW YORK

Hy-tex

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BARNES HOSPITAL, St. Louis—Theo. C. Link, architect; John Hill Construction Co., builders. WASHINGTON UNIVERSITY MEDICAL SCHOOL—Theo. C. Link, architect; James H. Bright C. and B. Co., builders. CHILDREN'S HOSPITAL—Mauran, Russell & Crowell, architects; Edward Ward, builder. Nearly 2,000,000 Hy-tex Gray Ironspots and Gray Impervious No. 602 were used.



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Every physician or surgeon who means to attend the meeting of the American Medical Association at Atlantic City, June 22 to 26, will find it well worth his while to stop off at St. Louis, Louisville, or Cincinnati, if he can, to inspect one of these hospitals.

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